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# INTRODUCTION

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### INTRODUCTION

Thank you for selecting a Jeep® Wrangler and welcome to our worldwide family.

This is a specialized utility vehicle designed for both on-road and off-road use. It can go places and perform tasks for which conventional two-wheel drive enclosed vehicles were not intended. It handles and maneuvers differently from many passenger cars both on-road and off-road, so take time to become familiar with your vehicle.

Before you start to drive this vehicle, read the Owner's Manual. Be sure you are familiar with all vehicle controls, particularly those used for braking, steering, transmission, and transfer case shifting. Learn how your vehicle handles on different road surfaces. Your driving skills will improve with experience. When driving off-road or working the vehicle, don't overload it or expect it to

overcome the laws of nature. Always observe federal, state, provincial and local laws wherever you drive.

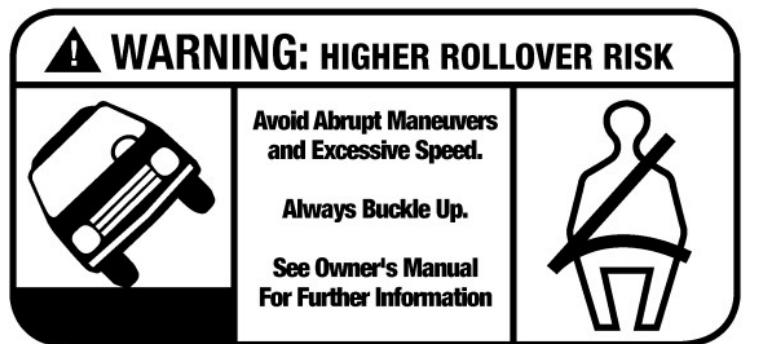
As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or an accident. Be sure to read "On-Road/Off-Road Driving Tips" in this manual.

### Roll Over Warning

Utility vehicles have a significantly higher roll over rate than other types of vehicles. This vehicle has a higher ground clearance, higher center of gravity, and narrower track than many passenger cars. It is capable of performing better in a wide variety of off-road applications. Driven in an unsafe manner, all vehicles can be caused to go out of control. Because of the higher center of gravity and the narrower track, if this vehicle is out of control it may roll over when some other vehicles may not.

Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that can cause loss of vehicle

control. Failure to operate this vehicle safely may result in an accident, roll over of the vehicle and serious injury or death. Because of its open-body construction, your vehicle offers less protection than closed vehicles in the event of an accident.



Roll Over Warning Label

**Failure to use driver and passenger seat belts provided** is a major cause of severe or fatal injury. In fact, the U.S. government notes that the universal use of existing seat belts could cut the highway death toll by 10,000 or more each year, and could reduce disabling injuries by 2 million annually. In a roll over crash, an unbelted person is significantly more likely to die than a person wearing a seal belt. Always buckle up.

Although your vehicle may be equipped with a soft top or optional hard top to give the occupants protection from the weather, these tops do not offer structural protection in the event of an accident and do not change the open-body characteristic of the vehicle. Even though your vehicle has a sport bar and side bars for some extra protection, it is a truly open vehicle-there is no structural integrated top and it has low sides and a folding windshield. Many of these vehicles do not have fully enclosed hard doors.

## 6 INTRODUCTION

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Operating this vehicle at excessive speeds or while intoxicated may result in loss of control, collision with other vehicles or objects, going off the road, or overturning, any of which may lead to serious injury or death. Also, **failure to use standard seat belts** subjects the driver and passengers to a greater risk of being thrown out of an open-body vehicle than out of a closed vehicle in an accident which can result in injury or death.

This manual has been prepared with the assistance of service and engineering specialists to acquaint you with the operation and maintenance of your new vehicle. It is supplemented by a Warranty Information Booklet and various customer oriented documents. You are urged to read these publications carefully. Following the instructions and recommendations in this manual will help assure safe and enjoyable operation of your vehicle.

**NOTE:** After you read the manual, it should be stored in the vehicle for convenient reference and remain with the vehicle when sold so that the new owner will be aware of all safety warnings.

When it comes to service, remember that your authorized dealer knows your vehicle best, has the factory-trained technicians and genuine Mopar® parts, and is interested in your satisfaction.

**WARNING!**

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. In addition, certain fluids contained in vehicles and certain products of component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**HOW TO USE THIS MANUAL**

Consult the table of contents to determine which section contains the information you desire.

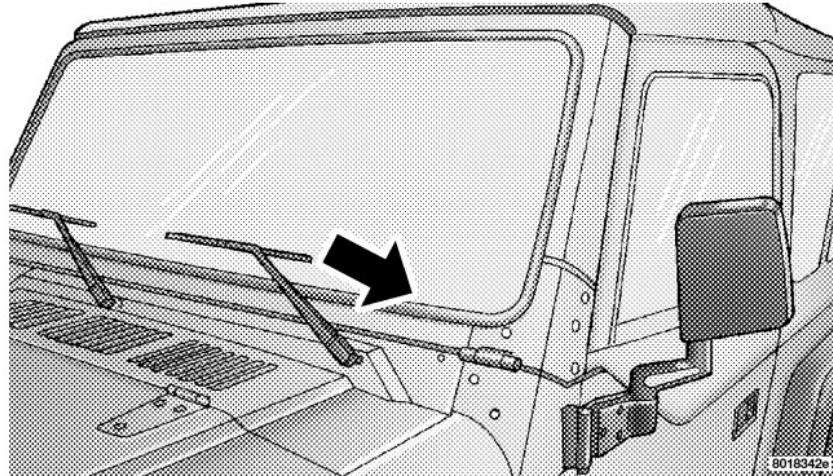
The detailed index, at the rear of the manual, contains a complete listing of all subjects.

**WARNINGS AND CAUTIONS**

This manual contains **WARNINGS** against operating procedures which could result in an accident or bodily injury. It also contains **CAUTIONS** against procedures which could result in damage to your vehicle. If you do not read this entire manual you may miss important information. Observe all Warnings and Cautions.

### VEHICLE IDENTIFICATION NUMBER

The vehicle identification number (VIN) is found on a stamped plate located on the left front corner of the instrument panel pad, visible from outside of vehicle through windshield. This number also appears on the Automobile Information Disclosure Label affixed to a window on your vehicle. Save this label for a convenient record of your vehicle identification number and optional equipment.



**Vehicle Identification Number**

**NOTE:** It is illegal to remove the VIN plate.

## VEHICLE MODIFICATIONS / ALTERATIONS

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### WARNING!

Any modifications or alterations to this vehicle could seriously affect its roadworthiness and safety and may lead to an accident resulting in serious injury or death.



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# THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

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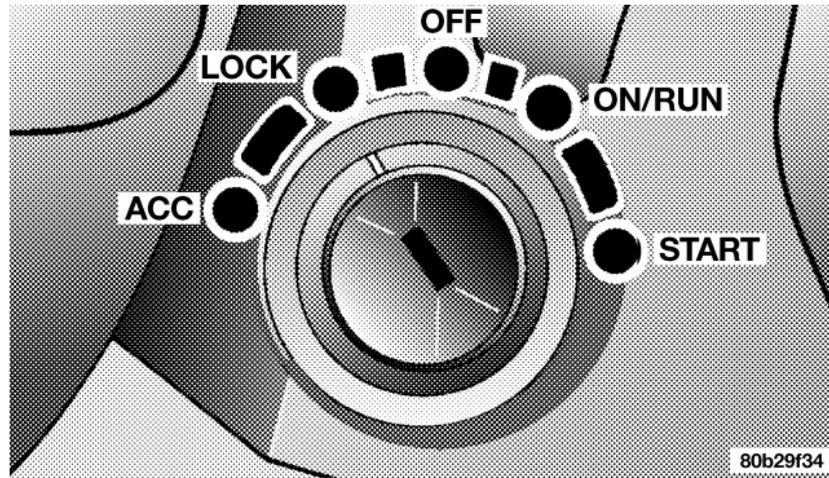
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## A WORD ABOUT YOUR KEYS

The keys for your new vehicle are enclosed in a plastic bag with the key code number on it. If you received your keys without the bag, ask your dealer to give you the number. The key code can also be obtained by the dealer from your vehicle invoice.

### Ignition Key

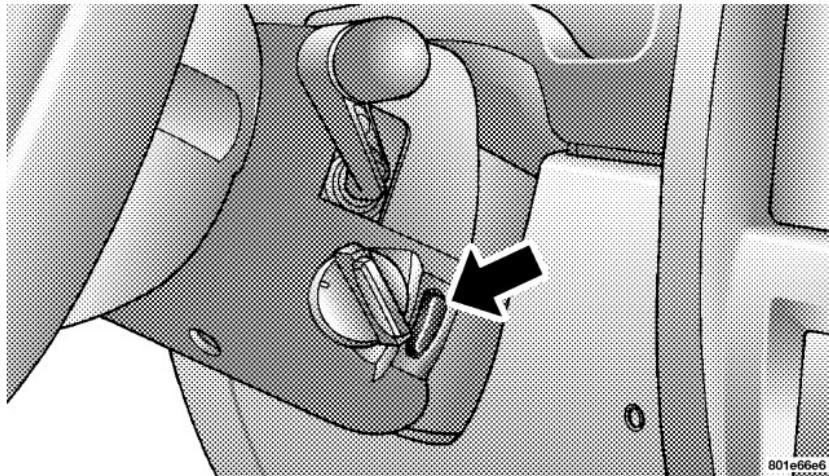
Insert the key fully, then turn the switch to one of the four illustrated positions. The key can be inserted or withdrawn only in the LOCK position.



**Ignition Key Positions**

To remove the ignition key on models with an automatic transmission, place the gearshift lever in P (Park), turn the ignition key to LOCK, and remove the key.

To remove the ignition key on models with a manual transmission, depress and hold the key release button, turn the ignition key to LOCK, and remove the key.



**Ignition Key Removal**

### **Key-In-Ignition Reminder**

Opening the driver's door when the key is in the ignition, sounds a signal to remind you to remove the key.

#### **CAUTION!**

**Always remove the key from the ignition, and lock all doors when leaving the vehicle unattended.**

### **SENTRY KEY IMMOBILIZER SYSTEM — IF EQUIPPED**

The Sentry Key Immobilizer System (SKIM) prevents unauthorized operation of the vehicle by disabling the engine. The system will shut the engine down after 2 seconds of running if an invalid key is used to start the vehicle. This system utilizes ignition keys which have an electronic chip (transponder) embedded into them. Only

keys that have been programmed to the vehicle can be used to start and operate the vehicle for longer than the 2 second validation time period.

The Sentry Key Immobilizer System does not need to be armed or activated. Operation of the system is automatic regardless of whether or not the vehicle is locked or unlocked. During normal operation, the SKIM indicator light will come on for 3 seconds immediately after the ignition switch is turned on for a bulb check. Afterwards, if the bulb remains on, this indicates a malfunction in the electronics. If the bulb begins to flash immediately after the ignition switch is turned on, this indicates that an invalid key is being used to start the vehicle. Both of these conditions will result in the engine being shut down after 2 seconds of running. Keep in mind that a key which has not been programmed is also considered an invalid key even if it is cut to fit the ignition for that vehicle.

If the SKIM indicator light comes on during normal vehicle operation (it has been running for longer than 10 seconds) a fault has been detected in the electronics and the vehicle should be serviced as soon as possible.

#### NOTE:

- The Sentry Key Immobilizer System is not compatible with remote starting systems. Use of these systems may result in vehicle starting problems and loss of security protection.
- Mobil Speedpass™, additional Sentry Keys, or any other transponder equipped components on the same keychain will not cause a key-related (Transponder) fault unless the additional part is **physically held against the ignition key** being used when starting the vehicle. Also, cell phones, pagers, or other RF electronics will not cause interference with this system.

All of the keys provided with your new vehicle have been programmed to the vehicle electronics.

## **Important Note About Service**

A four digit PIN number is needed to service the Sentry Key Immobilizer System. This number can be obtained from your authorized dealer. However, this number can also be found on your customer invoice that you were given upon receipt of your vehicle.

## **Replacement Keys**

**NOTE:** Only keys that have been programmed to the vehicle electronics can be used to start the vehicle. Once a Sentry Key has been programmed to a vehicle, it cannot be programmed to any other vehicle.

At the time of purchase, the original owner is provided with a four digit PIN number. This number is required for dealer replacement of keys. Duplication of keys may be performed at an authorized dealer or by using the Customer Key Programming procedure. This procedure

consists of programming a blank key to the vehicle electronics. A blank key is one which has never been programmed.

**NOTE:** When having the Sentry Key System serviced, bring all vehicle keys to the dealer.

## **Customer Key Programming**

You can program new keys to the system if you have two valid keys by doing the following:

1. Cut the additional Sentry Key Transponder blank(s) to match the ignition switch lock cylinder key code.
2. Insert the first valid key into the ignition switch and turn the ignition switch ON for at least 3 seconds but no longer than 15 seconds. Turn the ignition switch OFF and remove the first key.

3. Insert the second valid key and turn the ignition switch ON within 15 seconds. After ten seconds, a chime will sound and the SKIM indicator light will begin to flash. Turn the ignition switch OFF and remove the second key.
4. Insert a blank Sentry Key into the ignition switch and turn the ignition switch ON within 60 seconds. After 10 seconds, a single chime will sound. The SKIM indicator light will stop flashing, turn on for 3 seconds; then turn off.

The new Sentry Key has been programmed. Repeat this process to program up to a total of 8 keys.

### **General Information**

The Sentry Key Immobilizer System complies with FCC rules part 15 and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference that may be received, including interference that may cause undesired operation.

### **ILLUMINATED ENTRY — IF EQUIPPED**

The interior lights will come on when you open any door.

The lights will remain on after all of the doors are closed, and then fade to off or they will immediately fade to off once the ignition switch is turned on.

### **STEERING WHEEL LOCK — IF EQUIPPED**

Your vehicle may be equipped with a passive steering wheel lock (manual transmission only). This lock prevents steering the vehicle without the ignition key. If the steering wheel is moved a half turn in either direction and the key is not in the ignition, the steering wheel will lock.

## To Manually Lock the Steering Wheel

With the engine running, rotate the steering wheel 1/2 revolution from straight ahead position, turn off the engine and remove the key. Rotate the steering wheel slightly in both directions until the lock engages.

## To Release the Steering Wheel Lock

Insert the key in the ignition and turn the wheel slightly to the right or left to disengage the lock.

**NOTE:** If you turned the wheel to the right to engage the lock, you must turn the wheel slightly to the right to disengage it. If you turned the wheel to the left to engage the lock, turn the wheel slightly to the left to disengage it.

## DOORS AND LOCKS

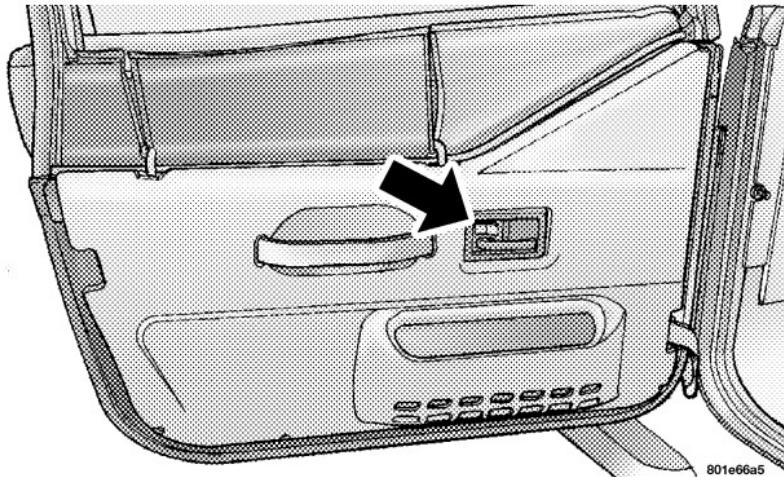
**NOTE:** The ignition key that is used to start the vehicle is used to lock or unlock the doors, tailgate, and console storage.

To unlock doors and tailgate insert the key and turn. Once unlocked, the tailgate can be opened or closed without using the key.

To open the tailgate, lift the latch release and swing open the tailgate.

## Door Locks

Doors on both hard-top and soft-top models are equipped with a rocker-type interior door lock. To lock a door when leaving your vehicle, press to the "Lock" position and close the door.



Door Lock Knob

## WARNING!

- For personal security reasons and safety in an accident, lock the vehicle doors when you drive as well as when you park and leave the vehicle.
- When leaving the vehicle always remove the key from the ignition lock, and lock your vehicle. Do not leave children unattended in the vehicle, or with access to an unlocked vehicle. Unsupervised use of vehicle equipment may cause severe personal injuries and death.

## OCCUPANT RESTRAINTS

Some of the most important safety features in your vehicle are the restraint systems. These include the front and rear seat belts for the driver and all passengers, and front airbags for both the driver and front passenger. If

## 20 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

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you will be carrying children too small for adult-size belts, your seat belts can also be used to hold infant and child restraint systems.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly to keep you and your passengers as safe as possible.

### **WARNING!**

**In a collision, you and your passengers can suffer injuries, including fatalities, if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.**

Buckle up even though you are an excellent driver, even on short trips. Someone on the road may be a poor driver and cause a collision that includes you. This can happen far away from home or on your own street.

Research has shown that seat belts save lives, and that they can reduce the seriousness of injuries in a collision. Some of the worst injuries happen when people are thrown from the vehicle. Seat belts reduce the possibility of ejection and the risk of injury caused by striking the inside of the vehicle. **Everyone** in a motor vehicle should be belted at all times to reduce or prevent injuries.

### **Lap/Shoulder Belts**

The outboard front and rear seats of your vehicle are equipped with lap/shoulder belts.

The belt webbing retractor is designed to lock during very sudden stops or collisions. This feature allows the shoulder part of the belt to move freely with you under

normal conditions. But in a collision, the belt will lock and reduce the risk of your striking the inside of the vehicle or being thrown out.

### WARNING!

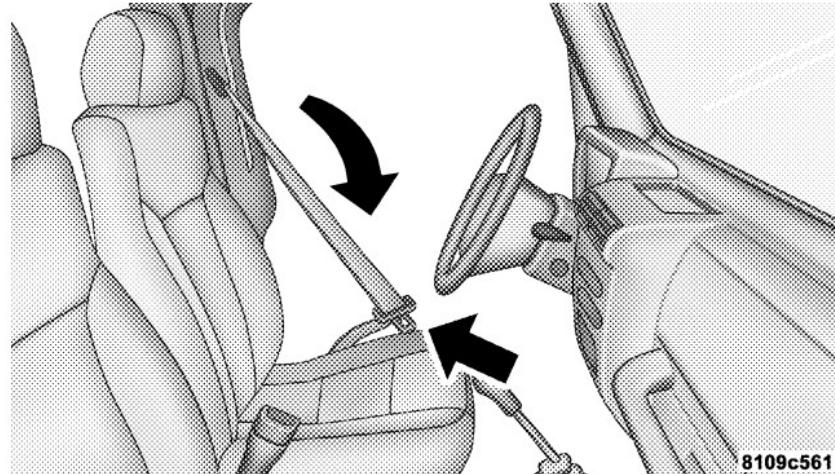
- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat using a seat belt properly.

### WARNING!

- Wearing a seat belt incorrectly is dangerous. Seat belts are designed to go around the large bones of your body. These are the strongest parts of your body and take the forces of a collision the best. Wearing your belt in the wrong place could make your injuries in a collision much worse. You might suffer internal injuries, or you could even slide out of part of the belt. Follow these instructions to wear your seat belt safely and to keep your passengers safe, too.
- Two people should never be belted into a single seat belt. People belted together can crash into one another in an accident, hurting one another badly. Never use a lap/shoulder belt or a lap belt for more than one person, no matter what their size.

## Lap/Shoulder Belt Operating Instructions

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The seat belt latch plate is above the back of the front seat, next to your arm in the rear seat. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to allow the belt to go around your lap.



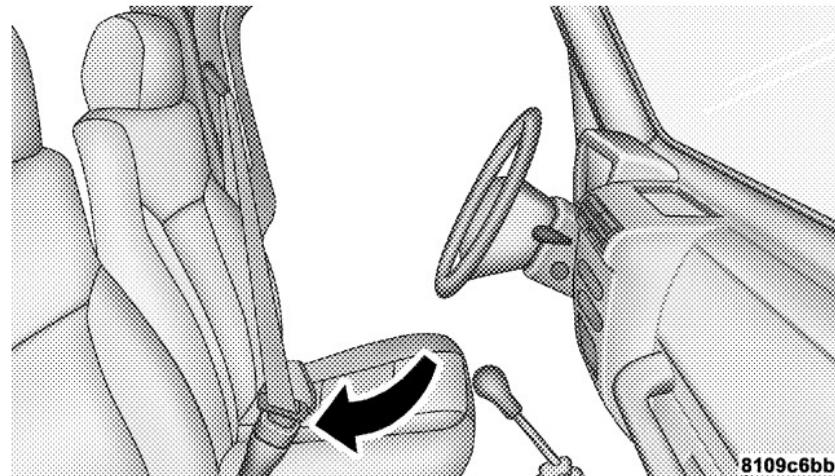
**Latch Plate**

3. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a "click."

**WARNING!**

- A belt that is buckled into the wrong buckle will not protect you properly. The lap portion could ride too high on your body, possibly causing internal injuries. Always buckle your belt into the buckle nearest you.
- A belt that is loose will not protect you as well. In a sudden stop you could move too far forward, increasing the possibility of injury. Wear your seat belt snugly.
- A belt that is worn under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing head and neck injury. A belt worn under the arm can cause internal injuries. Ribs aren't as strong as shoulder bones. Wear the belt over your shoulder so that the strongest bones will take the force in a collision.
- A shoulder belt placed behind will not protect you from injury during a collision. You are more likely to hit your head in a collision if you do not wear your shoulder belt. The lap and shoulder belt are meant to be used together.

4. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the latch plate and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.

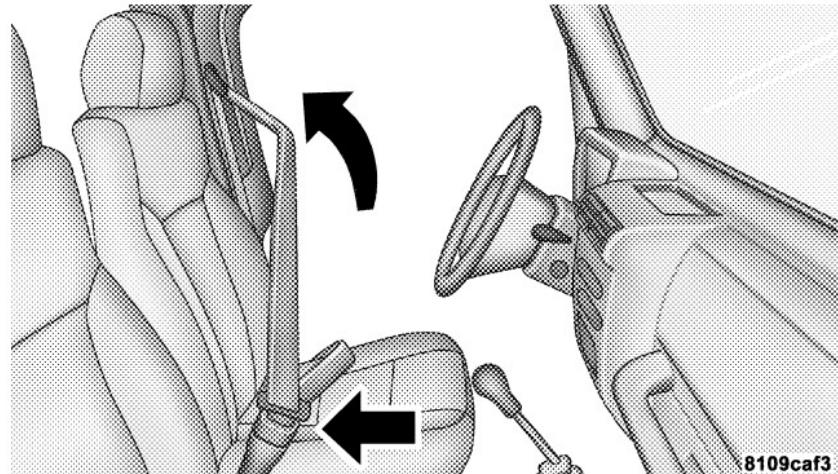
**Latch Plate To Buckle**

**WARNING!**

- A lap belt worn too high can increase the risk of internal injury in a collision. The belt forces won't be at the strong hip and pelvic bones, but across your abdomen. Always wear the lap belt as low as possible and keep it snug.
- A twisted belt cannot do its job as well. In a collision it could even cut into you. Be sure the belt is straight. If you cannot straighten a belt in your vehicle, take it to your dealer and have it fixed.

5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

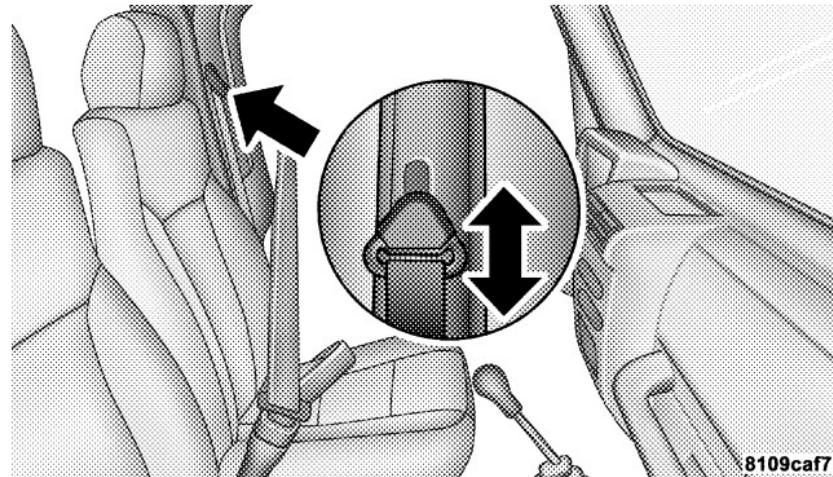
6. To release the belt, push the red button on the buckle. The belt will automatically retract to its stowed position. If necessary, slide the latch plate down the webbing to allow the belt to retract fully.



Removing Slack From Belt

**WARNING!**

A frayed or torn belt could rip apart in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system. Seat belt assemblies must be replaced after a collision if they have been damaged (bent retractor, torn webbing, etc.).



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**Adjusting Upper Shoulder Belt Anchorage**

In the front seats, the shoulder belt anchorage can be adjusted upward or downward to position the belt away from your neck. Push in on the anchorage near your outside shoulder and slide it up or down to reach the position that serves you best.

As a guide, if you are shorter than average, you will prefer a lower position, and if you are taller than average, you'll prefer a higher position. When you release the anchorage, try to move it up or down to make sure that it is locked in position.

## Seat Belts And Pregnant Women

We recommend that pregnant women use seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

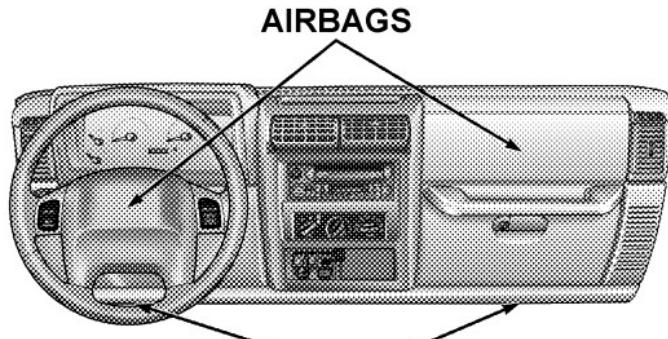
## Seat Belt Extender

If a seat belt is too short, even when fully extended and when the adjustable upper shoulder belt anchorage (if equipped) is in its lowest position, your dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and store it.

### WARNING!

Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use when the seat belt is not long enough when it is worn low and snug, and in the recommended seating positions. Remove and stow the seat belt extender when not needed.

## Driver And Front Passenger Supplemental Restraint Systems (SRS) — Airbags



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### Front Airbag Components

This vehicle has front airbags for both the driver and front passenger as a supplement to the seat belt restraint system. The driver's front airbag is mounted in the center of the steering wheel. The passenger's front airbag is

mounted in the instrument panel, above the glove compartment. The words SRS/AIRBAG are embossed on the airbag covers.

**NOTE:** The front airbags are certified to the Federal regulations that allow less forceful deployment.

**NOTE:** Airbag covers may not be obvious in the interior trim; but they will open to allow airbag deployment.

### WARNING!

Do not put anything on or around the front airbag covers or attempt to manually open them. You may damage the airbags and you could be injured because the airbags are no longer functional. These protective covers for the airbag cushions are designed to open only when the airbags are inflating.

Airbags inflate in moderate to high speed impacts. Along with the seat belts, front airbags work with the instrument panel knee bolsters to provide improved protection for the driver and front passenger.

The seat belts are designed to protect you in many types of collisions. The front airbags deploy in moderate to severe frontal collisions. But even in collisions where the airbags work, you need the seat belts to keep you in the right position for the airbags to protect you properly.

Here are some simple steps you can take to minimize the risk of harm from a deploying airbag.

**1. Children 12 years old and under should always ride buckled up in a rear seat.**

Infants in rear-facing child restraints (designed for children up to 20 lbs (9 kg) and at least one year old) should

**NEVER** ride in the front seat of a vehicle with a passenger front airbag, unless the airbag is turned off. An airbag deployment can cause severe injury or death to infants in this position.

Children that are not big enough to properly wear the vehicle seat belt (Refer to "Child Restraint" in this section.) should be secured in the rear seat, in a child restraint or belt-positioning booster seat. Older children who do not use child restraints or belt-positioning booster seats should ride properly buckled up in the rear seat. Never allow children to slide the shoulder belt behind them or under their arm.

If a child from 1 to 12 years old must ride in the front passenger seat because the vehicle is crowded, move the seat as far back as possible, and use the proper child restraint. Refer to "Child Restraint" in this section.

You should read the instructions provided with your child restraint to make sure that you are using it properly.

2. All occupants should use their lap and shoulder belts properly.
3. The driver and front passenger seats should be moved back as far as practical to allow the front airbags room to inflate.

## WARNING!

- Relying on the airbags alone could lead to more severe injuries in a collision. The airbags work with your seat belt to restrain you properly. In some collisions the airbags won't deploy at all. Always wear your seat belts even though you have airbags.
- Being too close to the steering wheel or instrument panel during airbag deployment could cause serious injury. Airbags need room to inflate. Sit back, comfortably extending your arms to reach the steering wheel or instrument panel.

## Airbag System Components

The airbag system consists of the following:

- Occupant Restraint Control (ORC) Module
- Airbag Warning Light
- Driver Airbag
- Passenger Airbag
- Steering Wheel And Column
- Instrument Panel
- Crash Sensor
- Interconnecting Wiring
- Knee Impact Bolsters

## How The Airbag System Works

- The **Occupant Restraint Control (ORC) Module** determines if a frontal collision is severe enough to require the airbags to inflate.
- The ORC will not detect side, roll over, or rear impacts.
- The ORC also monitors the readiness of the electronic parts of the system whenever the ignition switch is in the START or ON position. These include all of the items listed above except the knee bolster, the instrument panel, and the steering wheel and column. If the ignition key is in the OFF or ACC position, or not in the ignition, the airbags are not on and will not inflate.
- Also, the ORC turns on the “Airbag Warning Light” in the instrument panel for 6 to 8 seconds when the ignition is first turned on, then turns the light off. If it detects a malfunction in any part of the system, it turns on the light either momentarily or continuously. If the

ORC detects a malfunction, the “Airbag Warning Light” will illuminate for a minimum of 12 seconds and will remain illuminated as long as the malfunction exists.

### WARNING!

**Ignoring the “Airbag Warning Light” in your instrument panel could mean you won’t have the airbags to protect you in a collision. If the light does not come on, stays on after you start the vehicle, or if it comes on as you drive, have the airbag system checked right away.**

- The **Driver and Passenger Airbag/Inflator Units** are located in the center of the steering wheel and in the instrument panel. When the ORC detects a collision requiring the airbags, it signals the inflator units. A large quantity of nontoxic gas is generated to inflate

the airbags. The airbag covers separate and fold out of the way as the bags inflate to full size. The bags fully inflate in about 50 milliseconds. This is about half of the time it takes to blink your eyes. The airbags then quickly deflate while helping to restrain the driver and front passenger. The driver’s front airbag gas is vented through the airbag material towards the instrument panel. The passenger’s front airbag gas is vented through vent holes in the sides of the airbag. In this way the airbags do not interfere with your control of the vehicle.

- The **Knee Impact Bolsters** help protect the knees and position the driver and front passenger’s for the best interaction with the front airbag.

## If A Deployment Occurs

The airbag system is designed to deploy when the impact sensors detect a moderate-to-severe frontal collision, to help restrain the driver and front passenger, and then to immediately deflate.

**NOTE:** A frontal collision that is not severe enough to need airbag protection will not activate the system. This does not mean something is wrong with the airbag system.

If you do have a collision which deploys the airbags, any or all of the following may occur:

- The nylon airbag material may sometimes cause abrasions and/or skin reddening to the driver and front passenger as the airbags deploy and unfold.

The abrasions are similar to friction rope burns or those you might get sliding along a carpet or gymnasium floor. They are not caused by contact with

chemicals. They are not permanent and normally heal quickly. However, if you haven't healed significantly within a few days, or if you have any blistering, see your doctor immediately.

- As the airbags deflate you may see some smoke-like particles. The particles are a normal by-product of the process that generates the nontoxic gas used for airbag inflation. These airborne particles may irritate the skin, eyes, nose, or throat. If you have skin or eye irritation, rinse the area with cool water. For nose or throat irritation, move to fresh air. If the irritation continues, see your doctor.

If these particles settle on your clothing, follow the garment manufacturer's instructions for cleaning.

- It is not advisable to drive your vehicle after the airbags have deployed. If you are involved in another collision, the airbags will not be in place to protect you.

**WARNING!**

Deployed airbags cannot protect you in another collision. Have the airbags replaced by an authorized dealer as soon as possible.

**Maintaining Your Airbag System****WARNING!**

2

- Modifications to any part of the airbag system could cause it to fail when you need it. You could be injured because the airbags are not there to protect you. Do not modify the components or wiring, including adding any kind of badges or stickers to the steering wheel hub trim cover or the upper right side of the instrument panel. Do not modify the front bumper, vehicle body structure, or frame.
- You need proper knee impact protection in a collision. Do not mount or locate any aftermarket equipment on or behind the knee bolster.
- It is dangerous to try to repair any part of the airbag system yourself. Be sure to tell anyone who works on your vehicle that it has airbags.

## Airbag Warning Light

You will want to have the airbags ready to inflate for your protection in an collision. While the airbag system is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system immediately.

- The “Airbag Warning Light” does not come on or flickers during the 6 to 8 seconds when the ignition switch is first turned on.
- The “Airbag Warning Light” remains on or flickers after the 6 to 8 second interval.
- The “Airbag Warning Light” flickers or comes on and remains on while driving.

## Child Restraint

Everyone in your vehicle needs to be buckled up all the time-babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

Children 12 years and under should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats rather than in the front.

## WARNING!

In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap can become so great that you could not hold the child, no matter how strong you are. The child and others could be badly injured. Any child riding in your vehicle should be in a proper restraint for the child's size.

### Infants and Small Children

There are different sizes and types of restraints for children from newborn size to the child almost large enough for an adult safety belt. Always check the child seat owner's manual to ensure that you have the right seat for your child. Use the restraint that is correct for your child.

- The rearward-facing infant carrier is for babies weighing up to about 20 lbs (9 kg), and one year old or more. The infant restraint must NEVER be used in the front seat of a vehicle with a front passenger airbag unless the airbag is turned off. An airbag deployment could cause severe injury or death to infants in this position. The infant carrier is held in the vehicle by the lap belt, lap/shoulder belt, or the LATCH child restraint anchorage system.
- Children under one year of age should continue to ride in a rear-facing infant seat, even if they weigh more than 20 lbs (9 kg). A "convertible" child seat, one that is designed to be used either rearward-facing or forward-facing, should be used for children who are too heavy for the infant carrier, but who are too young to face forward in the vehicle.
- The forward-facing child seat is for children from about 20–40 lbs (9–18 kg), and more than one year old.

The child seat is held in the vehicle by the lap belt, lap/shoulder belt, or the LATCH child restraint anchorage system.

- The belt-positioning booster seat is for children weighing more than 40 lbs (18 kg), but who are still too small to fit in the vehicle's seat belts properly. If the child cannot sit with knees bent over the seat cushion while the child's back is against the seat back, they should use a belt-positioning booster seat. The child and booster seat are held in the vehicle by lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion or lap belt.)
- For additional information refer to [www.seatcheck.org](http://www.seatcheck.org) or call 1-866-SEATCHECK.

## WARNING!

- Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.
- A rearward facing infant restraint should only be used in a rear seat unless the passenger frontal airbag is turned off. If the airbag is left on, a rearward facing infant restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal injury to the infant.

Here are some tips on getting the most out of your child restraint:

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. The manufacturer also recommends that you make sure that you can install the child restraint in the vehicle where you will use it before you buy it.
- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.
- The passenger seat belts are equipped with cinching latch plates designed to keep the lap portion or lap belt tight around the child restraint so that it is not necessary to use a locking clip. Pull up on the shoulder

portion of the lap/shoulder belt, or on the free end of the lap belt to tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary.

- In the rear seat, you may have trouble tightening the lap belt or lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle-end belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.
- If the belt still cannot be tightened, or if pulling and pushing on the restraint loosens the belt, disconnect the latch plate from the buckle, turn the buckle around, and insert the latch plate into the buckle again. If you still cannot make the child restraint secure, try a different seating position.

- Buckle the child into the seat according to the child restraint manufacturer's instructions.
- When your child restraint is not in use, secure it with the seat belt or remove it from the vehicle. Do not leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seat backs and cause serious personal injury.

#### **LATCH — Child Seat Anchorage System (Lower Anchors and Tether for CH ildren)**

Your vehicle's two rear outboard (if equipped) seating positions are equipped with the child restraint anchorage system called LATCH. The LATCH system provides for the installation of the child restraint without using the vehicle's seat belts, instead securing the child restraint using lower anchorages and upper tether straps from the child restraint to the vehicle structure.

LATCH-compatible child restraint systems are now available. However, because the lower anchorages are to be introduced over a period of years, child restraint systems having attachments for those anchorages will continue to also have features for installation using the vehicle's seat belts. Child restraints having tether straps and hooks for connection to the top tether anchorages have been available for some time. For some older child restraints, many child restraint manufacturers offer add-on tether strap kits or retro-fit kits. You are urged to take advantage of all the available attachments provided with your child restraint in any vehicle.

**NOTE:** When using the LATCH attaching system to install a child restraint, please ensure that all seat belts not being used for occupant restraints are stowed and out of reach of children. It is recommended that before installing the child restraint, buckle the seat belt so the seat belt is tucked behind the child restraint and out of reach. If the buckled seat belt interferes with the child restraint installation, instead of tucking the seat belt behind the child restraint, route the seat belt through the child restraint belt path and then buckle it. This should stow the seat belt out of the reach of an inquisitive child. Remind all children in the vehicle that the seat belts are not toys and should not be played with, and never leave your child unattended in the vehicle.

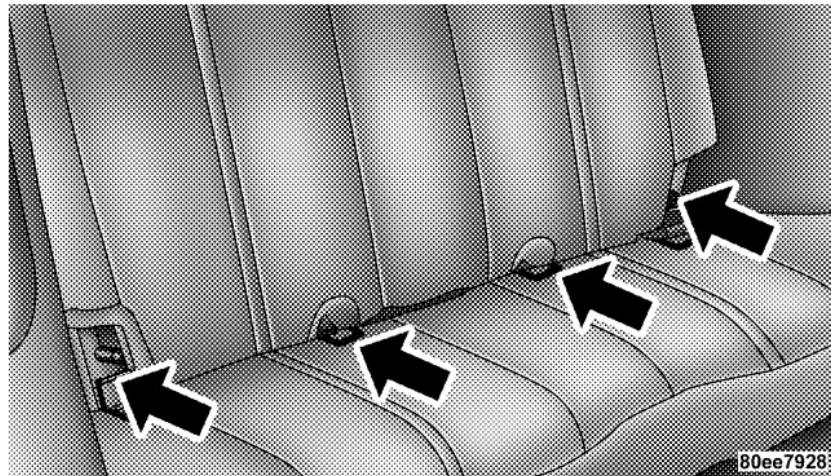
The two rear outboard seating positions have lower anchorages that are capable of accommodating LATCH-compatible child seats having flexible, webbing-mounted lower attachments. Child seats with fixed lower attachments must be installed in the outboard positions only. Regardless of the specific type of lower attachment, **NEVER** install LATCH-compatible child seats such that two seats share a common lower anchorage. If installing child seats in adjacent rear-seating positions or if your child restraints are not LATCH-compatible, install the restraints using the vehicle's seat belts.

### **Installing the LATCH-Compatible Child Restraint System**

We urge that you carefully follow the directions of the manufacturer when installing your child restraint. Not all child restraint systems will be installed as described here. Again, carefully follow the installation instructions that were provided with the child restraint system.

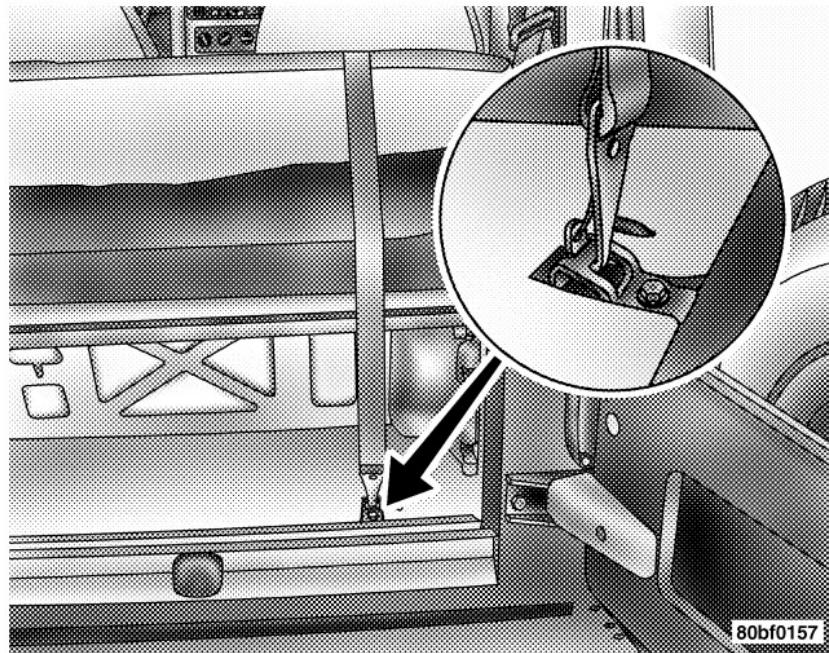
## 40 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

The rear seat lower anchorages are round bars, located at the rear of the seat cushion where it meets the seat back, and are just visible when you lean into the rear seat to install the child restraint. You will easily feel them if you run your finger along the intersection of the seatback and seat cushion surfaces.



Rear Seat Latch Anchors

In addition, there are tether strap anchorages behind the rear seat (on the floor behind each rear outboard seating position).



Rear Seat Tether Anchor

Many, but not all restraint systems will be equipped with separate straps on each side, with each having a hook or connector for attachment to the lower anchorage and a means of adjusting the tension in the strap. Forward-facing toddler restraints and some rear-facing infant restraints will also be equipped with a tether strap, a hook for attachment to the tether strap anchorage and a means of adjusting the tension of the strap.

You will first loosen the adjusters on the lower straps and on the tether strap so that you can more easily attach the hooks or connectors to the vehicle anchorages. Next attach the lower hooks or connectors over the top of the anchorage bars, pushing aside the seat cover material. Then, attach the tether strap to the rear tether anchorage, being careful to route the tether strap to provide the most direct path between the anchor and the child restraint. If the Add-A-Trunk™ option is present in the vehicle, the lid should be opened and positioned against the back of the rear seat prior to attaching and adjusting the strap.

Finally, tighten all three straps as you push the child restraint rearward and downward into the seat, removing slack in the straps according to the child restraint manufacturer's instructions.

### WARNING!

Improper installation of a child restraint to the LATCH anchorages can lead to failure of an infant or child restraint. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

## Installing Child Restraints Using the Vehicle Seat Belt

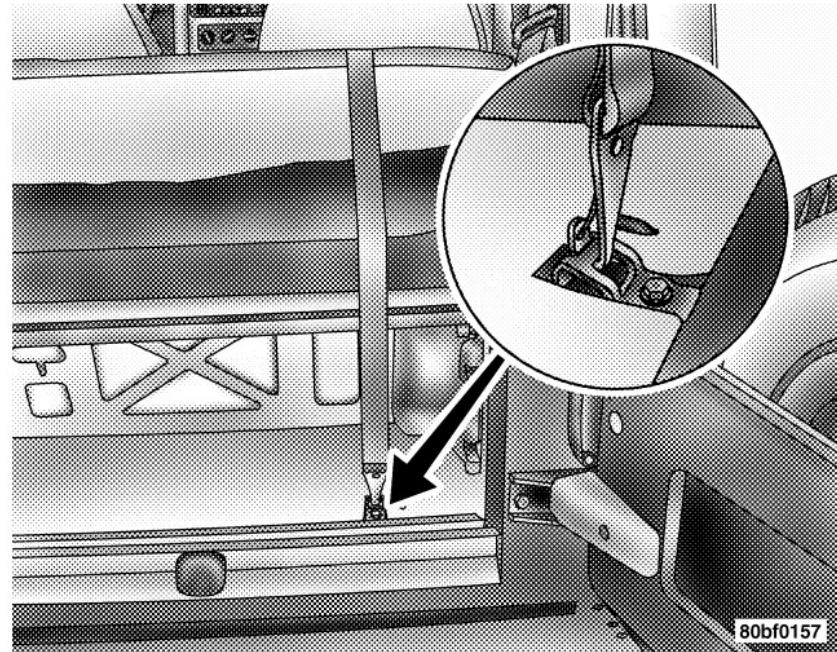
The passenger seat belts are equipped with cinching latch plates, which are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip. Pull up on the shoulder portion of the lap/shoulder belt to tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary.

In the rear seat, you may have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle-end belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.

If the belt still cannot be tightened, or if by pulling and pushing on the restraint loosens the belt, you may need to do something more. Disconnect the latch plate from the buckle, turn the buckle around, and insert the latch plate into the buckle again. If you still can't make the child restraint secure, try a different seating position.

To attach a child restraint tether strap:

For the rear outboard seating positions, route the tether over the rear seat and attach to the rear floor tether anchors. If the Add-A-Trunk™ option is present in the vehicle, the lid should be opened and positioned against the back of the rear seat prior to attaching and adjusting the strap.



Rear Seat Tether Anchor

## WARNING!

An incorrectly anchored tether strap could lead to increased head motion and possible injury to the child. Use only the anchor positions directly behind the child seat to secure a child restraint top tether strap.

### Children Too Large for Booster Seats

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seat back should use the lap/shoulder belt in a rear seat.

- Make sure that the child is seated upright in the seat.
- The lap belt portion should be low on the hips and as snug as possible.

- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.
- If the shoulder belt contacts the child's face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.

### Transporting Pets

Airbags deploying in the front seat could harm your pet. An unrestrained pet will be thrown about and possibly injured, or injure a passenger during panic braking or in a collision.

Pets should be restrained in the rear seat in pet harnesses or pet carriers that are secured by seat belts.

### ENGINE BREAK-IN RECOMMENDATIONS

A long break-in period is not required for the engine in your new vehicle.

Drive moderately during the first 300 miles (500 km). After the initial 60 miles (100 km), speeds up to 50 or 55 mph (80 or 90 km/h) are desirable.

While cruising, brief full-throttle acceleration, within the limits of local traffic laws, contributes to a good break-in. Wide open throttle acceleration in low gear can be detrimental and should be avoided.

The engine oil installed in the engine at the factory is a high quality energy conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. The recommended viscosity and quality grades are shown in Section 7 of this manual. NON-DETERGENT OR STRAIGHT MINERAL OILS MUST NEVER BE USED.

A new engine may consume some oil during its first few thousand miles (kilometers) of operation. This should be considered as a normal part of the break-in and not interpreted as an indication of difficulty.

## SAFETY TIPS

### Exhaust Gas

#### WARNING!

Exhaust gases can injure or kill. They contain carbon monoxide (CO) which is colorless and odorless. Breathing it can make you unconscious and can eventually poison you. To avoid breathing (CO) follow the safety tips below.

- Do not inhale exhaust gases. They contain carbon monoxide, a colorless and odorless gas which can kill. Never run the engine in a closed area, such as a

garage, and never sit in a parked vehicle with the engine running for an extended period. If the vehicle is stopped in an open area with engine running for more than a short period, adjust the ventilation system to force fresh, outside air into the vehicle.

- Guard against carbon monoxide with proper maintenance. Have the exhaust system inspected every time the vehicle is raised. Have any abnormal conditions repaired promptly. Until repaired, drive with all side windows fully open.
- Always run the climate control in panel or floor mode when driving with any windows open, even if only slightly, to help keep fresh air circulating inside vehicle. Otherwise poisonous gases could be drawn into the vehicle.

- On hardtop models, keep the tailgate window closed when driving your vehicle. On fabric top models, do not drive with the rear window curtain up unless the side curtains are also open. This will prevent carbon monoxide and other poisonous exhaust gases from entering the vehicle.

### Safety Checks You Should Make Inside The Vehicle

#### Seat Belts

Inspect the belt system periodically, checking for cuts, frays and loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system.

Seat belt assemblies must be replaced after an accident if they have been damaged (bent retractor, torn webbing, etc.). If there is any question regarding belt or retractor condition, replace the belt.

#### Airbag Warning Light

The light should come on and remain on for 6 to 8 seconds as a indicator check when the ignition switch is first turned on. If the indicator is not lit during starting, have it serviced. If the light stays on or comes on while driving, have the system checked by an authorized dealer.

#### Defrosters

Check operation by selecting the defrost mode and place the blower control on high speed. You should feel the air directed against the windshield.

## Safety Checks You Should Make Outside The Vehicle

### Tires

Examine tires for excessive tread wear or uneven wear patterns. Check for stones, nails, glass, or other objects lodged in the tread. Inspect for tread cuts or sidewall cracks. Check wheel nuts for tightness and tires (including spare) for proper pressure.

### Lights

Have someone observe the operation of all exterior lights while you work the controls. Check turn signal and high beam indicator lights on the instrument panel.

### Fluid Leaks

Check area under vehicle after overnight parking for fuel, coolant, oil, or other fluid leaks. Also, if gasoline fumes are detected, the cause should be located and corrected immediately.



Information Provided by:  
**DEALER**  
e-PROCESS

# UNDERSTANDING THE FEATURES OF YOUR VEHICLE

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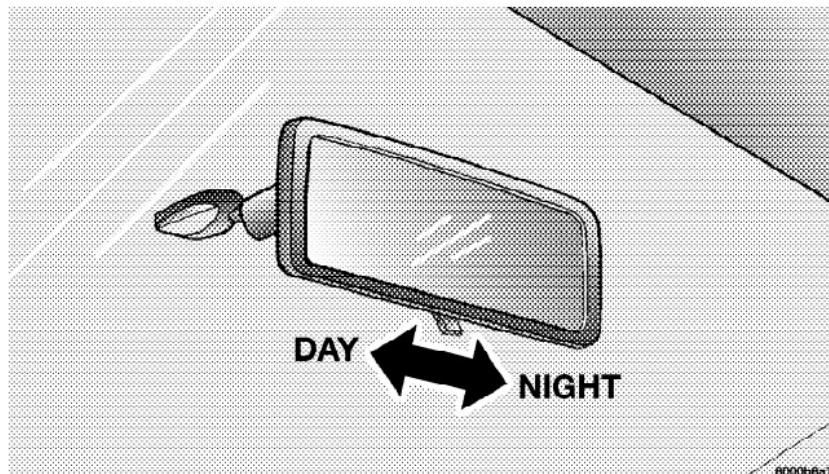
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## MIRRORS

### Inside Day/Night Mirror

The mirror should be adjusted to center on the view through the rear window. A two-point pivot system allows for horizontal and vertical adjustment of the mirror.



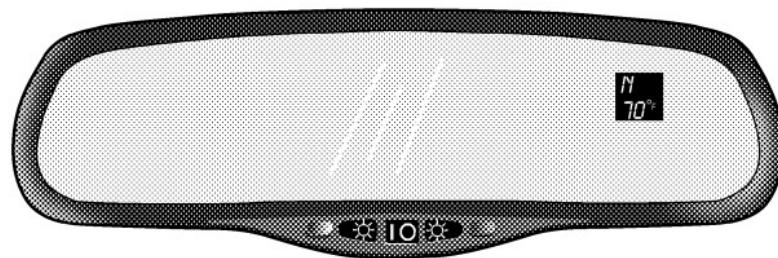
Adjusting Rearview Mirror

Annoying headlight glare can be reduced by moving the small control under the mirror to the night position (toward rear of vehicle). The mirror should be adjusted while set in the day position (toward windshield).

### Inside Automatic Dimming Compass/Temperature Mirror — If Equipped

The automatic day/night mirror is equipped with three buttons: the left switch for the left LED lamp, the right switch for the right side LED lamp and the center switch for the compass/temperature function. Pressing the left and right switches simultaneously for more than 5 seconds will turn the auto dim function on or off. If the feature is turned off, it will automatically turn back on with the next ignition cycle. A green light next to the right button will indicate when the dimming feature is activated active. The mirror also senses the backup lamp circuit, and will automatically disable its self-dimming feature whenever the transmission gear selector is in the R (Reverse) position.

**NOTE:** In some long, low speed traffic situations, the displayed temperature readings will be higher than the actual ambient temperature. This is considered normal. Accurate readings will resume with vehicle speed and sensor airflow.



Compass/Temperature Mirror

80f044b6

## CAUTION!

To avoid damage to the mirror during cleaning, never spray any cleaning solution directly onto the mirror. Apply the solution onto a clean cloth and wipe the mirror clean.

The compass/temperature display provides the outside temperature and one of eight compass headings (N, NE, E, SE, S, SW, W, NW).

Each time the center button is pressed and released within 3 seconds, the display toggles through the following three configurations:

- display compass/temperature (Fahrenheit),
- display compass/temperature (Celsius),
- and display off.

## Compass Calibration

### Automatic Calibration

Once calibrated, the compass has the ability to self-correct for changes in magnetic field to keep the compass accurate. This is referred to as Automatic Calibration. If magnetic field changes are too great, the compass will enter CAL mode on its own and manual calibration will be required. To recalibrate the compass, drive the vehicle at less than 5 mph (8 km/h) through up to 1½ 360° turns in an area free from large metal objects or power lines. When the compass has been calibrated, the CAL symbol will turn off and the compass will function normally.

When the vehicle is new, the compass should initially be verified for correct compass variance (refer to Compass Variation Adjustment) and calibrated manually (refer to Manual Calibration). This will ensure correct initial calibration and eliminate initial erroneous compass headings.

### Manual Calibration

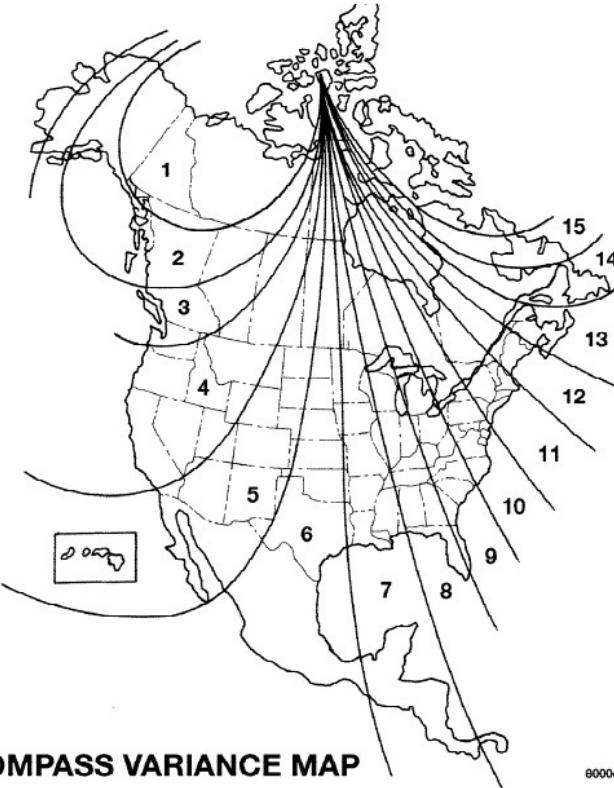
If the compass appears erratic and CAL does not appear, you must manually put the compass into the calibration mode. To ensure proper compass calibration, make sure the compass variance is properly set before manually calibrating the compass (refer to Compass Variation Adjustment).

To put the compass into calibration mode: Turn the ignition to the ON position. Press and hold the center button for more than 6 seconds until CAL (calibration mode) appears in the display. To change the display between VAR (compass variance) and CAL (compass calibration) modes. Release the button to invoke manual calibration mode. To recalibrate the compass, drive the vehicle at less than 5 mph (8 km/h) through up to 1½ 360° turns in an area free from large metal objects or power lines. When the compass has been calibrated, the CAL symbol will turn off and the compass will function normally.

## Compass Variation Adjustment

Compass Variance is the difference between magnetic north and geographic north. In some areas of the country, the difference between magnetic and geographic north is great enough to cause the compass to give false readings. If this occurs, the compass variance must be set according to the Compass Variance Map.

**NOTE:** When the mirror is in the VAR mode, the letter "Z" will be displayed along with the currently selected zone number.



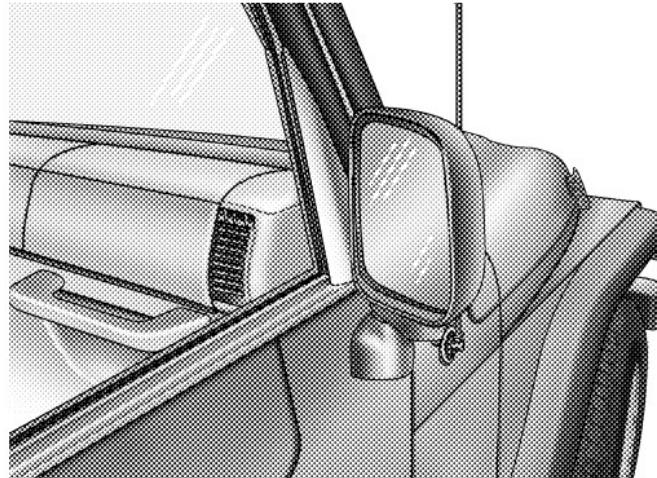
**COMPASS VARIANCE MAP**

8000cbab

To set the variance: Turn the ignition ON, and press and hold the center button for 3 to 6 seconds. The last variance zone number will be displayed. Each press of the center button will select a new variance zone. When the proper zone is selected, wait 5 seconds to resume normal operation.

### Outside Mirrors

To receive maximum benefit, adjust the outside mirror(s) to center on the adjacent lane of traffic with a slight overlap of the view obtained on the inside mirror.



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Outside Rear View Mirror

**WARNING!**

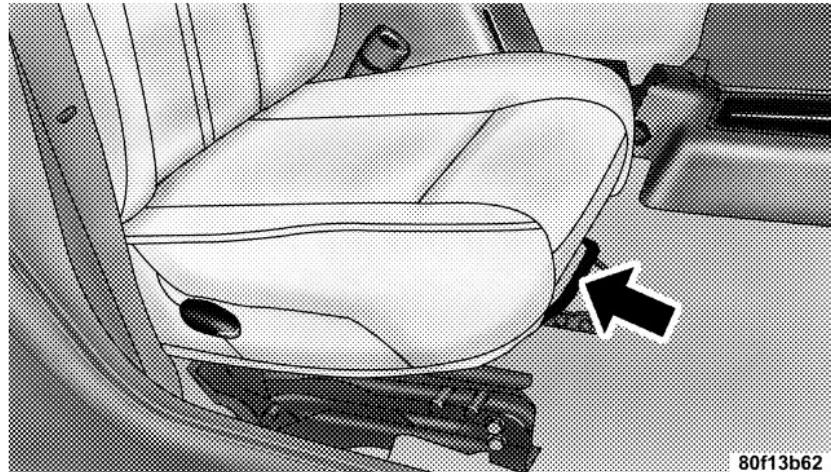
- Vehicles and other objects seen in the right side convex mirror will look smaller and farther away than they really are. Relying too much on your right side mirror could cause you to collide with another vehicle or other object.
- Use your inside mirror when judging the size or distance of a vehicle seen in the right side mirror.

**SEATS****WARNING!**

Adjusting a seat while the vehicle is moving is dangerous. The sudden movement of the seat could cause you to lose control. The seat belt might not be properly adjusted and you could be injured. Adjust any seat only while the vehicle is parked.

## Front Seat Adjustment

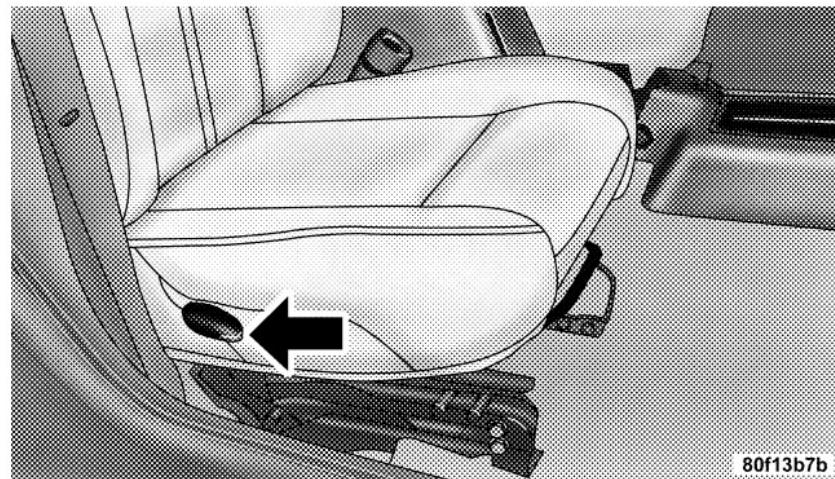
Move seat forward or rearward by lifting the lever. Be sure the latch engages fully.



Front Seat Adjuster Bar

## Front Seat Adjustment — Recline

To adjust seatback, lift lever, lean back, and release lever at desired position. To return seatback, lift the lever, lean forward and release the lever.



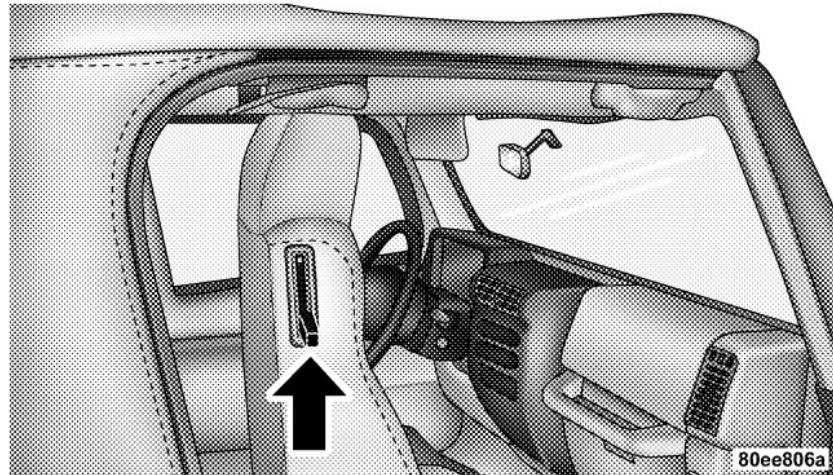
Front Seat Recline Lever

**WARNING!**

Do not ride with the seatback reclined so that the shoulder belt is no longer resting against your chest. In a collision you could slide under the seat belt and be seriously or even fatally injured. Use the recliner only when the vehicle is parked.

**Tilting Front Seats**

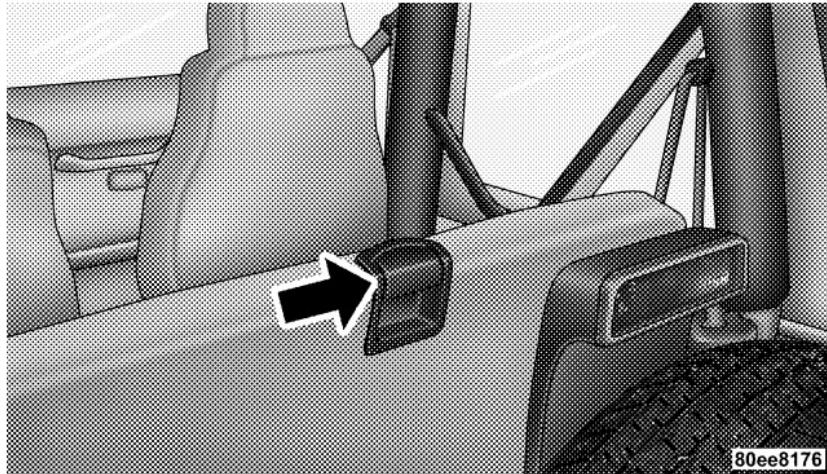
Push the lever upward on the seatback to tilt the entire seat forward.

**Front Seat Tilt Lever****Fold And Tumble Rear Seat**

To expand the cargo area:

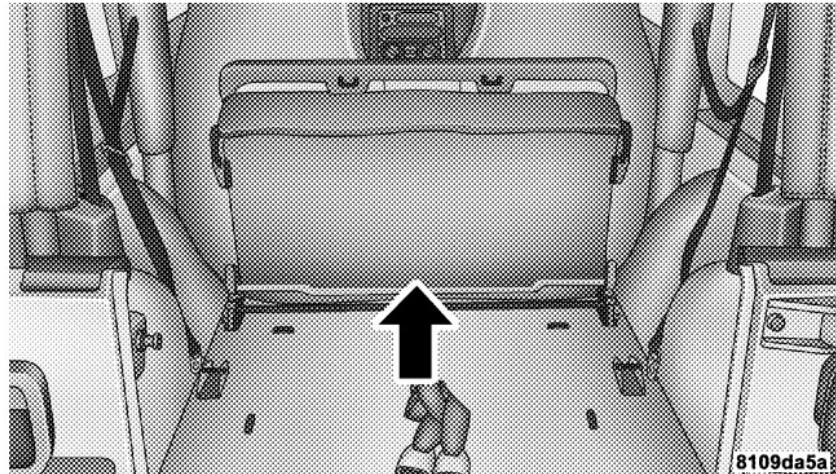
1. Slide seat belts through the seat cushions into the cargo area.

2. Lift the seatback release lever and fold seatback forward.



**Rear Seat Release Lever**

3. Slowly flip the entire seat forward.



**Folding Rear Seat**

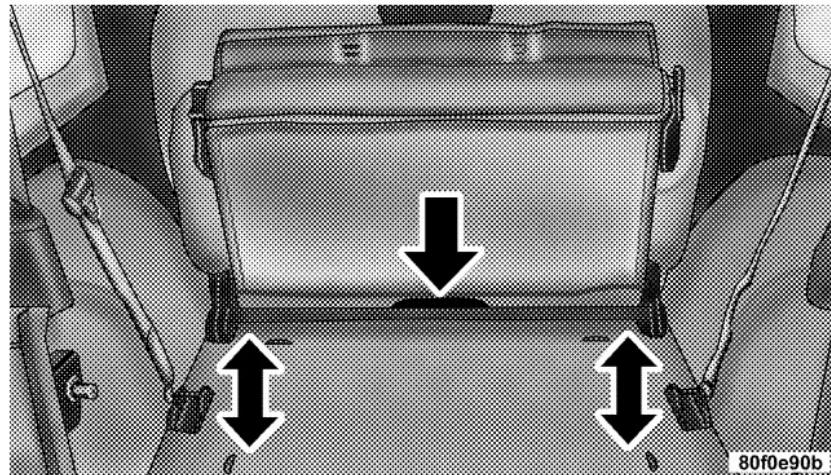
4. When completed, return seat to its normal position.

## Removing the Rear Seat

### WARNING!

- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision people riding in these areas are more likely to be seriously injured or killed.
  - Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
  - Be sure everyone in your vehicle is in a seat and using a seat belt properly.
- 
- First fold the rear seat forward following steps 1 through 3 under "Fold and Tumble Rear Seat" in this section.

- Press down on release bar on each side, and pull seat out and away from lower bracket.
- Remove seat from the vehicle.



Release Bar Location

## Replacing the Rear Seat

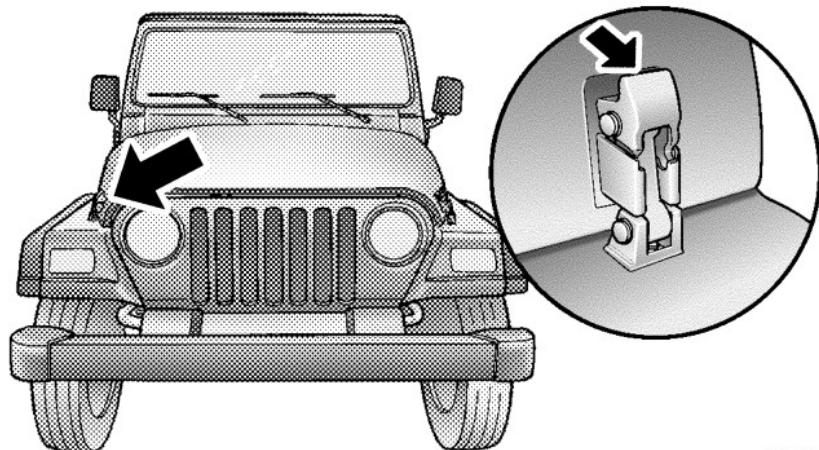
Reverse steps for removing the seat. Be certain to pull the seat belts between the seat cushion and seatback. Position them for passenger use.

### WARNING!

- To help protect against personal injury, passengers should not be seated in the rear cargo area with the rear seat folded down or removed from the vehicle.
- The rear cargo space is intended for load carrying purposes only, not for passengers, who should sit in seats and use seat belts.

## TO OPEN AND CLOSE THE HOOD

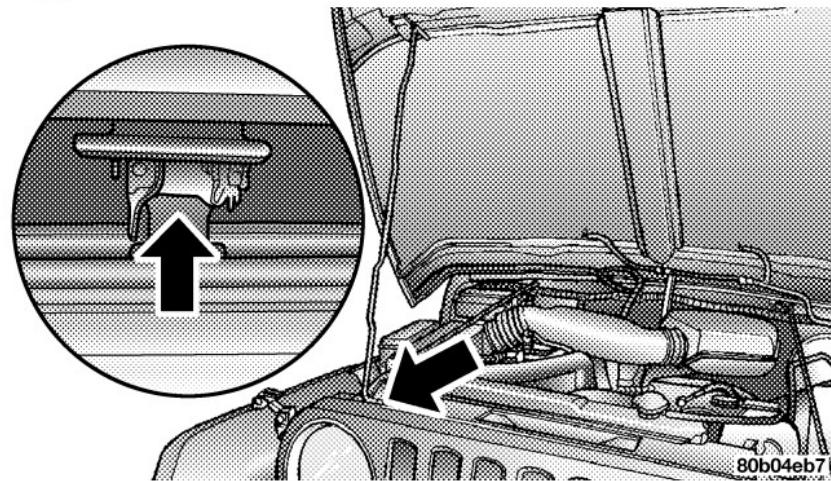
To open hood, first release both hood latches.



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Hood Latch Location

Next, locate handle in middle of the front end of the hood. Insert hand into gap between hood and radiator support and lift up on handle to raise hood. You may have to push down slightly on hood before lifting up on handle. Insert the support rod into the slot in the radiator support.



Hood Latch

To close the hood, remove the support rod from the radiator support and place it in the retaining clip. Lower the hood slowly, then let it drop the last few inches. Secure both of the hood latches.

### WARNING!

If the hood is not fully latched, it could fly up when the vehicle is moving and block your forward vision. Be sure all hood latches are latched fully before driving.

## LIGHTS

### Interior Lights

The overhead light comes on when a door is opened. It may also be turned on by rotating the control for the dimmer switch on the multi-function control lever fully upward.

The overhead light will automatically turn off in about 20 minutes if a door is left open or the dimmer control is left in the dome light position. Turn the ignition switch ON to restore the overhead light operation.

### Daytime Brightness Feature

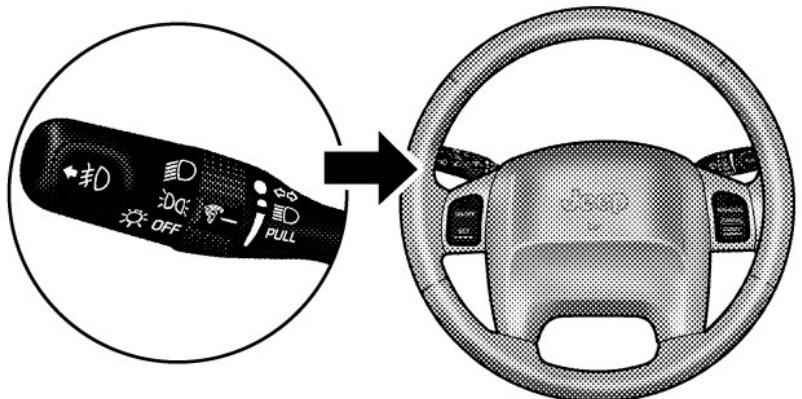
Certain instrument panel components (odometer, radio display) can be illuminated at full brightness during the daytime. This can be helpful when driving with your headlights on during the daytime such as in a parade or a funeral procession. To activate this feature, rotate the left stalk one detent lower than the dome light.

### Multi-Function Control Lever

The multi-function control lever controls the operation of the parking lights, headlights, headlight beam selection, passing light, fog lights, instrument panel light dimming, and turn signals.

### Parking Lights, Instrument Panel Lights, and Headlights

Turn the end of the multi-function control lever to the first detent for parking lights and instrument panel lights. Turn to the second detent for headlight operation.



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### Multi-Function Control Lever

To change the brightness of the instrument panel lights, rotate the center portion of the multi-function control lever up or down.

**NOTE:** If the driver's door is left open, and the headlights or parking lights are left on, the "High Beam Indicator Light" will flash and a chime will sound.

### Lights-On Reminder

If the headlights or parking lights are on after the ignition is turned off, a chime will sound when the driver's door is opened.

### Headlight Dimmer Switch

Pull the multi-function control lever towards you to switch the headlights to HIGH beam. Pull the multi-function control lever a second time to switch the headlights to LOW beam.

### Passing Light

You can signal another vehicle with your headlights by lightly pulling the multi-function control lever toward the steering wheel. This will cause the headlights to turn on at high beam and remain on until the lever is released.

## Front Fog Lights — If Equipped

 The front fog light switch is in the multi-function control lever. To activate the front fog lights, turn on the parking or low beam headlights and pull out the end of the lever.

**NOTE:** The fog lights will only operate with the parking lights or the headlights on low beam. Selecting high beam headlights will turn off the fog lights.

## Turn Signals

Move the multi-function control lever up or down and the arrows on each side of the instrument cluster flash to show proper operation of the front and rear turn signal lights. You can signal a lane change by moving the lever partially up or down without moving beyond the detent.

If either light remains on and does not flash, or there is a very fast flash rate, check for a defective outside light bulb. If an indicator fails to light when the lever is moved, it would suggest that the fuse or indicator bulb is defective.

**NOTE:** A tone will chime if the turn signals are left on for more than 1 mile (2 km).

## Daytime Running Lights — Canada Only

The headlights come on at a low intensity level after the vehicle has been driven approximately 3 feet (1 meter). They will turn off when the vehicle is turned off or when the headlights are switched on.

## WINDSHIELD WIPERS AND WASHERS

### CAUTION!

In cold weather, always turn off the wiper switch and allow the wipers to return to the park position before turning off the engine. If the wiper switch is left on and the wipers freeze to the windshield, damage to the wiper motor may occur when the vehicle is restarted.

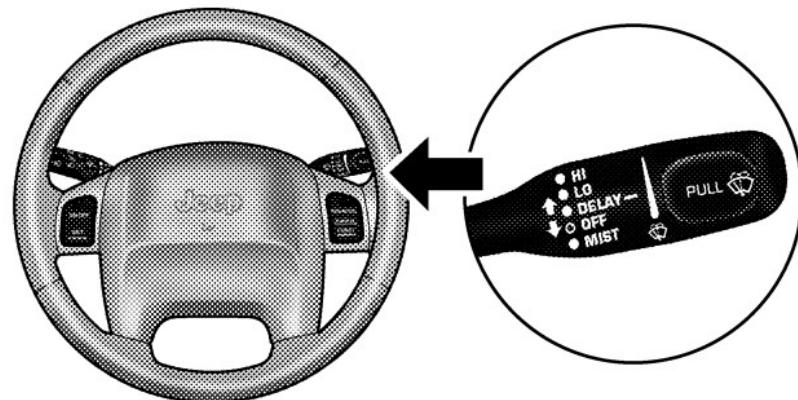
### Intermittent Wiper System

Use the intermittent wiper when weather conditions make a single wiping cycle, with a variable pause between cycles, desirable. Move the lever to the DELAY position, then select the delay interval by turning the end of the lever. The delay can be regulated from a maximum of approximately 18 seconds between cycles, to a cycle every second.

### Windshield Wiper Operation

Move the lever upward to the second detent for LO speed wiper operation, or to the third detent for HI speed operation

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Windshield Wiper/Washer Switch

## Windshield Washers

To use the washer, pull the lever toward you and hold while spray is desired. If the lever is pulled while in the delay range, the wiper will operate for two wipe cycles after the lever is released, and then resume the intermittent interval previously selected.

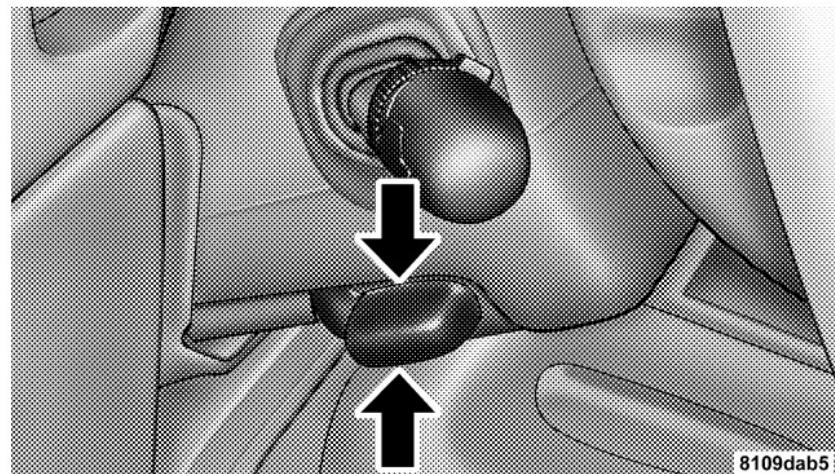
If the lever is pulled while in the OFF position, the wipers will operate for as long as the lever is held plus two wipe cycles, then turn OFF.

## Mist Feature

Push down on the wiper lever to activate a single wipe to clear off road mist or spray from a passing vehicle. As long as the lever is held down, the wipers will continue to operate.

## TILT STEERING COLUMN

To tilt the column, push down on the lever below the turn signal control and move the wheel up or down, as desired. Pull the lever back upwards to lock the column firmly in place.



Tilt Steering Column

**WARNING!**

Tilting the steering column while the vehicle is moving is dangerous. Without a stable steering column, you could lose control of the vehicle and have an accident. Adjust the column only while the vehicle is stopped. Be sure it is locked before driving.

**ELECTRONIC SPEED CONTROL**

When engaged, this device takes over accelerator operations at speeds greater than 35 mph (56 km/h). The controls are mounted on the steering wheel and consist of ON-OFF, SET, RESUME/ACCEL, CANCEL, and COAST controls.



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**To Activate**

Press and release the ON-OFF button to turn the system on. To turn the system off, press the ON-OFF button again. The system should be turned off when not in use. The CRUISE indicator light in the instrument cluster illuminates when the system is on.

## To Set At A Desired Speed

When the vehicle has reached the desired speed, press and release the SET button. Release the accelerator and the vehicle will operate at the selected speed.

## To Deactivate

A soft tap on the brake pedal, normal braking, or pressing the CANCEL button will deactivate the Speed Control without erasing the memory. Pressing the ON-OFF button or turning off the ignition erases the memory.

## To Resume Speed

To resume a previously set speed, press and release the RESUME/ACCEL button. Resume can be used at any speed above 35 mph (56 km/h).

## To Vary The Speed Setting

When the Speed Control is on and set, speed can be increased by pressing and holding the RESUME/ACCEL button. When the button is released, a new set speed will be established.

Tapping the RESUME/ACCEL button once will result in a 2 mph (3 km/h) speed increase. Each time the button is tapped, speed increases, so tapping the button three times will increase speed by 6 mph (9 km/h), etc.

To decrease speed while speed control is on and set, press and hold the COAST button. Release the button when the desired speed is reached, and the new speed will be set.

## To Accelerate for Passing

Depress the accelerator as you would normally. When the pedal is released, the vehicle will return to the set speed.

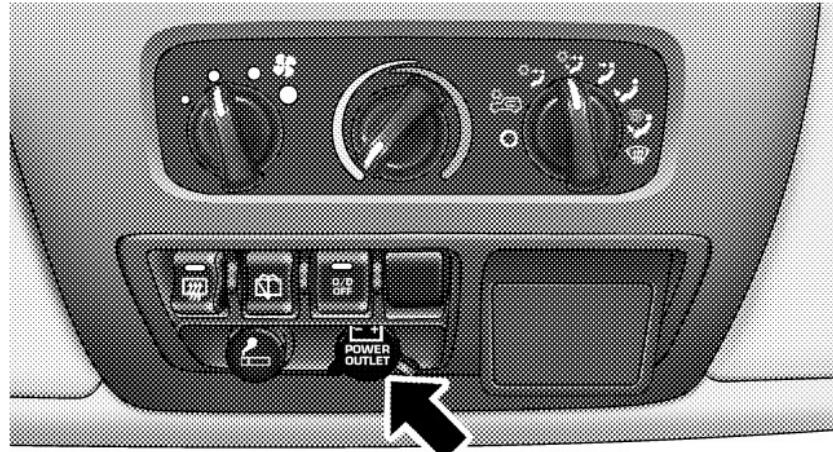
**NOTE:** When driving uphill, at elevations above 2,000 ft. (610 meters), or when the vehicle is heavily loaded (especially when towing) the vehicle may slow below the SET speed. (If the vehicle speed drops below 35 mph (56 km/h), the Speed Control will automatically disengage). If this happens, you can push down on the accelerator pedal to maintain the desired speed.

### WARNING!

Leaving the Speed Control on when not in use is dangerous. You could accidentally set the system or cause it to go faster than you want. You could lose control and have an accident. Always turn the system off when you are not using it.

### ELECTRICAL POWER OUTLET

To the right of the cigar lighter (if equipped) is the 12 volt power outlet. The outlet is connected directly to the battery, items plugged into this outlet may discharge the battery and/or prevent engine starting. The outlet includes a tethered cap labeled with a battery symbol indicating the power source.



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Power Outlet

## Electrical Outlet Use With Engine Off

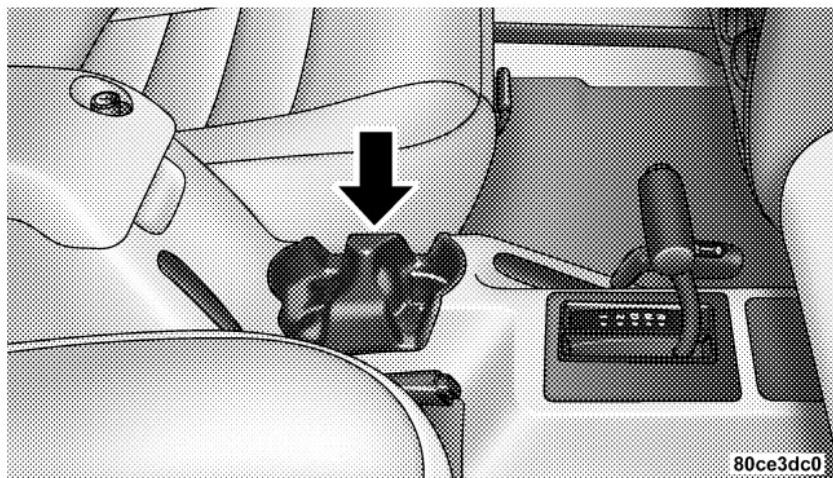
### WARNING!

- Many accessories that can be plugged in draw power from the vehicle's battery, even when not in use (i.e. cellular phones, etc.). Eventually, if plugged in long enough, the vehicle's battery will discharge sufficiently to degrade battery life and/or prevent engine starting.
- Accessories that draw higher power (i.e. coolers, vacuum cleaners, lights, etc.), will degrade the battery even more quickly. Only use these intermittently and with greater caution.
- After the use of high power draw accessories, or long periods of the vehicle not being started (with accessories still plugged in), the vehicle must be driven a sufficient length of time to allow the alternator to recharge the vehicle's battery.
- Power outlets are designed for accessory plugs only. Do not hang any type of accessory or accessory bracket from the plug.

### CUP HOLDERS

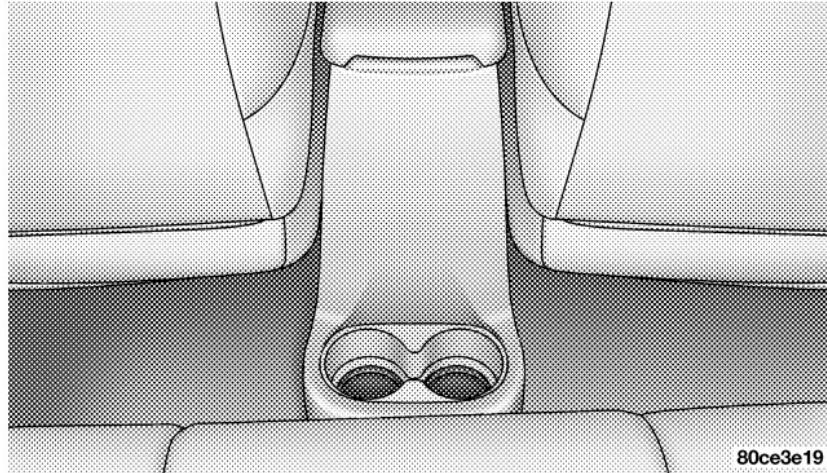
In the center console there are two cup holders for the front seat passengers.

**NOTE:** The cup holder insert is removable from the console, for cleaning.



Front Cup Holders

The rear passengers have cup holders at the rear of the center console.

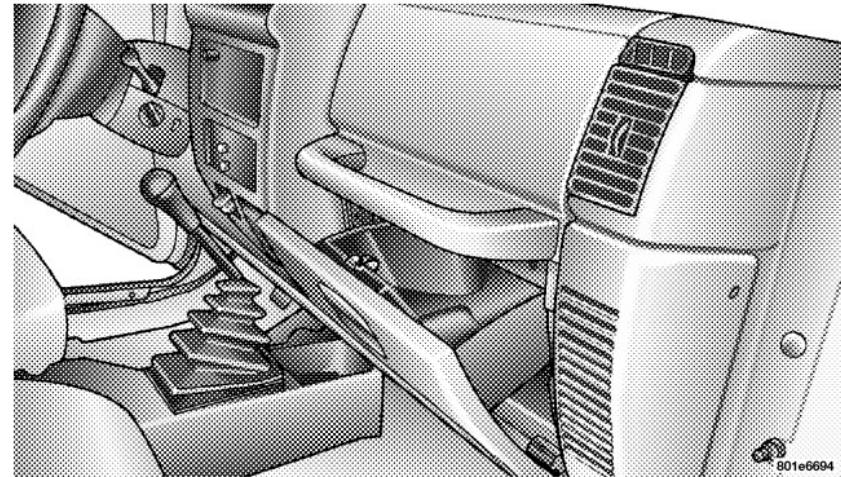


Rear Cup Holders

## STORAGE

### Glove Compartment

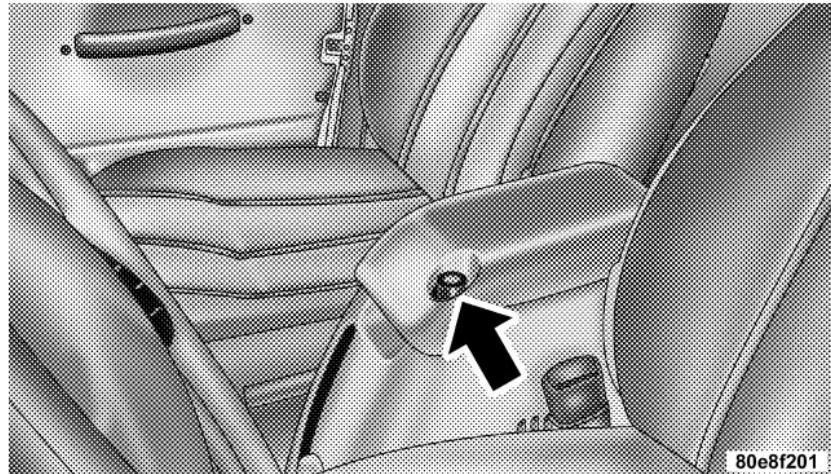
To open the glove compartment, pull the latch up.



Glove Compartment

## Console Storage Compartment — If Equipped

To unlock, insert key and turn. To open, press the latch button.



Center Console

## Add-A-Trunk™ — If Equipped

The factory-installed Add-A-Trunk™ option provides a secured compartment for parcels or equipment when the tailgate is closed and locked. To gain access to this compartment, simply open the tailgate and release the spring loaded latch pins. The cover of the Add-A-Trunk™ can then be raised.

When the Add-A-Trunk™ is not desired, it can be easily removed from the rear compartment. Remove the four knobs that secure the “trunk” to the body. Lift the Add-A-Trunk™ out and place the knobs in the molded-in storage area. Storage space is also provided for the wheel lock, and lock key tool.

Do not leave the Add-A-Trunk™ loose in your vehicle. Remove it and store it in a safe place.

## DUAL TOP — IF EQUIPPED

If your vehicle is equipped with a Dual Top, **you must remove one of the tops from the vehicle.** The soft top was installed at the factory for shipping purposes only. **The soft top and the hard top are to be used independently.** Removal is mandatory to prevent any possible wear and tear on the soft top, should both tops remain on the vehicle at the same time.

### Removing The Soft Top

1. Locate and remove the 2 boxes that contain the following items:

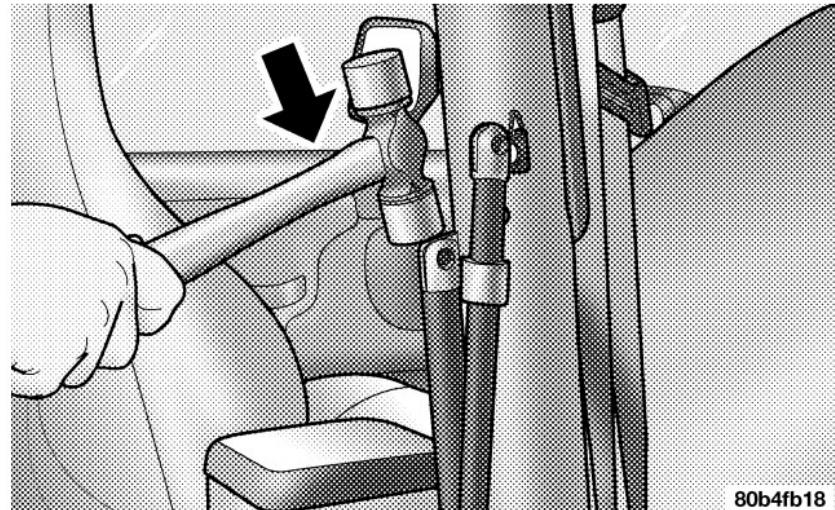
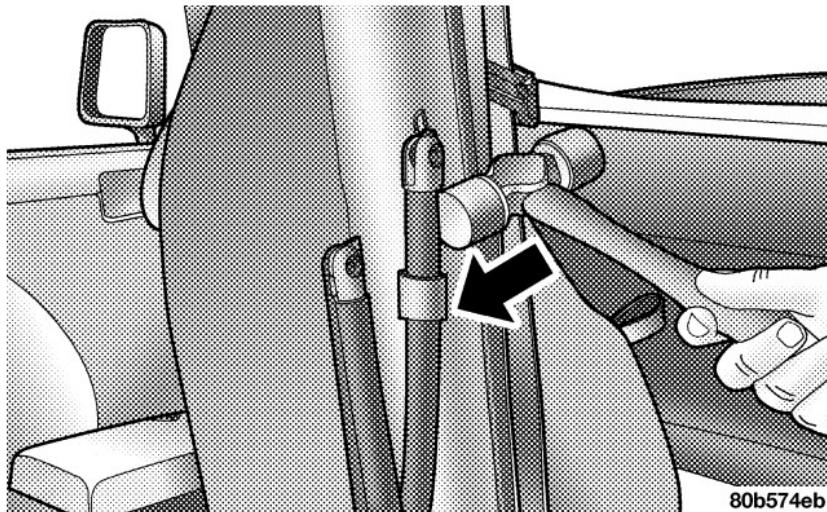
- right and left door frames
- door frame attachment knobs (4)
- right and left quarter windows
- rear tailgate window

2. Remove the hard top. Refer to “Hard Top Removal” in this section.

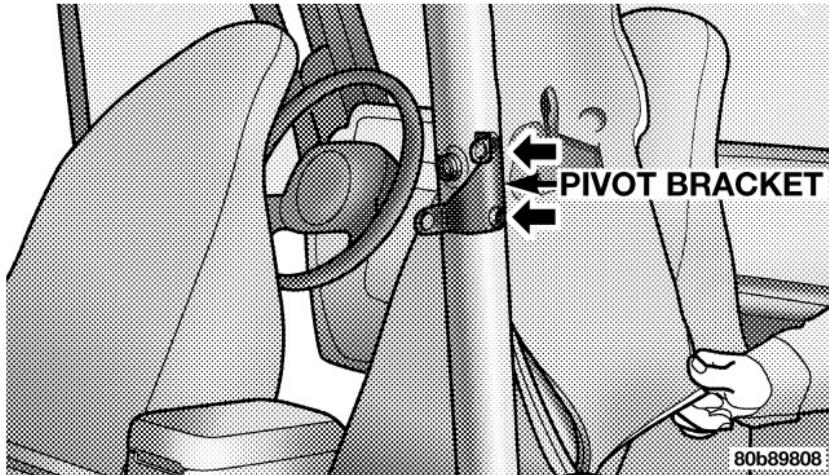
3. Remove the soft top bow assembly pivot bracket screws (2 per side for Wrangler, 1 per side for Unlimited models) using a #30 Torx® head driver.

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4. Using a rubber mallet, carefully tap the knuckles from the outside edge. This will disconnect the bow assembly from the pivot bracket. Remove the soft top from the vehicle and store in a clean, dry location.



5. Unzip the zipper on the sport bar cover to expose the pivot bracket. Remove the brackets using a #T40 Torx® head driver. Recover and re-zip the sports bar cover. Store pivot brackets and screws in a safe place.



6. Reinstall the hard top. Refer to "Hard Top Installation" in this section.

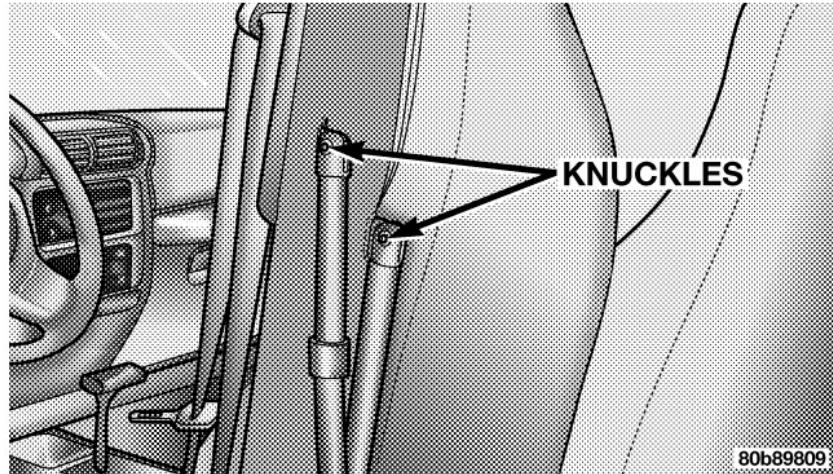
## Installing the Soft Top

**NOTE:** The following procedures are for first time set up only. For future soft top procedures, refer to "Soft Top" in this section.

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1. Locate and remove the following items prior to hard top removal:
  - right and left door frames
  - door frame attachment knobs (4)
  - right and left quarter windows
  - rear tailgate window.
2. Remove the hard top. Refer to "Hard Top Removal" in this section.
3. Install the door frames. Refer to "Door Frame" in this section.

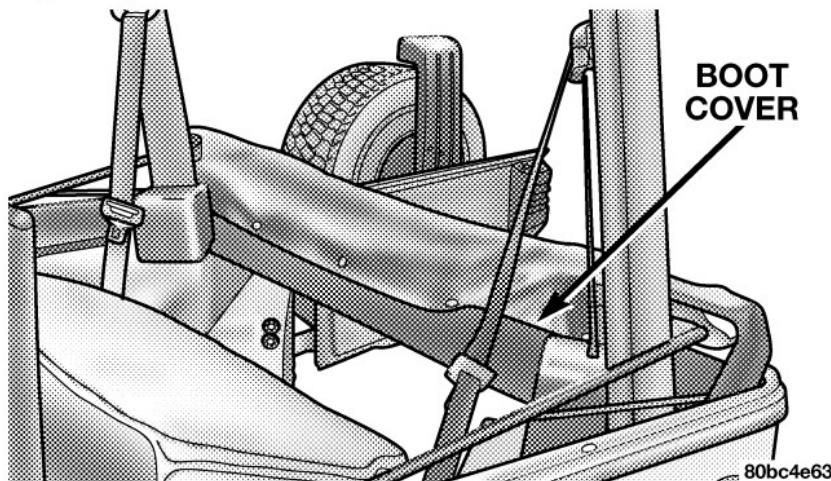
4. If the soft top has been removed, follow these steps to reinstall the soft top. If the soft top is on the vehicle, proceed to step #5.
  - a. If the pivot brackets have been removed, unzip the sport bar cover and attach the pivot brackets and screws with a #T40 Torx® head driver. Re-cover and re-zip sport bar cover.
  - b. If the door frames have been removed, re-install them (refer to "Door Frame" in this section).
  - c. Lay the soft top back into the vehicle with the curved portion of the bows facing upward.
  - d. Tap the knuckles on the side with a rubber mallet to reattach them to the pivot bracket.
  - e. Screw the pivot screws back into place. Secure them until they are snug being careful not to cross-thread the screws.

**CAUTION!**

**Do not overtighten the screws. You can strip the screws if they are overtightened.**

5. Unsnap and remove the black boot cover. This cover should be discarded. It was intended as a protective cover for shipping only.

**NOTE:** A visual instruction sheet is enclosed in the dual top wrap.



6. Open the tailgate.

7. Remove the tailgate bar (black bar with end caps) that is located in the soft top and set aside.

**NOTE:** Be sure the wire harness is not attached to the soft top bows before you lift the top.

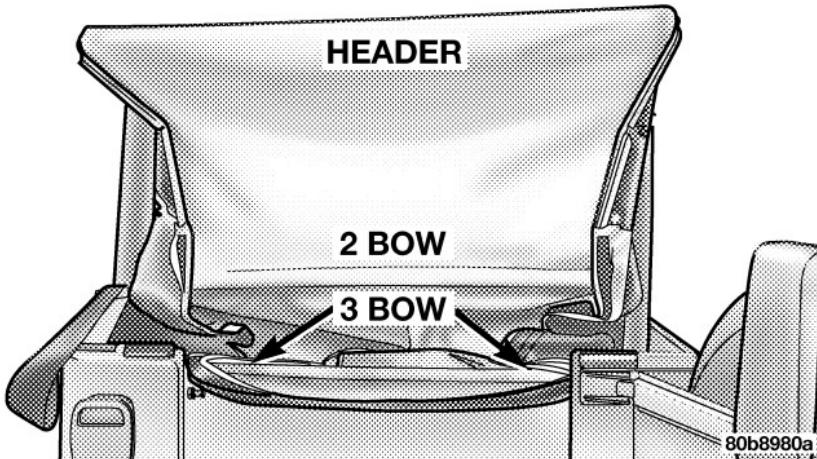
8. Lift the soft top fabric up and away from the plastic header with latches.

9. Pull all of the soft top fabric toward the rear of the vehicle and wrap around the plastic header.

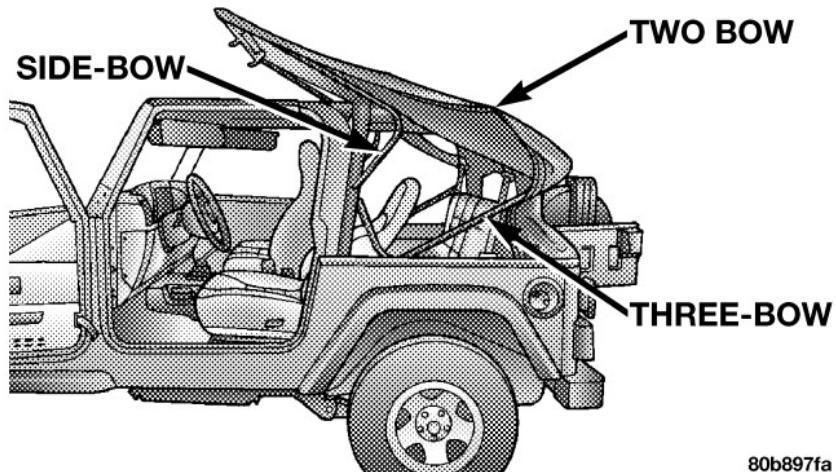
**For Unlimited Models** — Pull all of the soft top fabric toward the rear of the vehicle. Remove the three screws from the header. Pull fabric over header until holes line up. Reinstall screws through fabric holes and into header. Repeat for the other side. (Refer to the Instruction Sheet in the soft top for additional information and photos).

10. Pull the soft top fabric around the ends of the plastic header so that the fabric has a tight, smooth appearance.

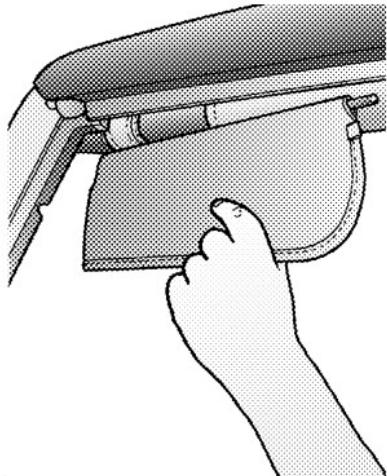
11. Working from the rear of the vehicle with the tailgate open, lift the plastic header (with latches) up and over the sport bar. As the header reaches the top, locate the 2 bow and push it up and over the sport bar.



12. Move to the side of the vehicle and pull the side bow forward and down. You will see the 3 bow rise from the rear of the vehicle.



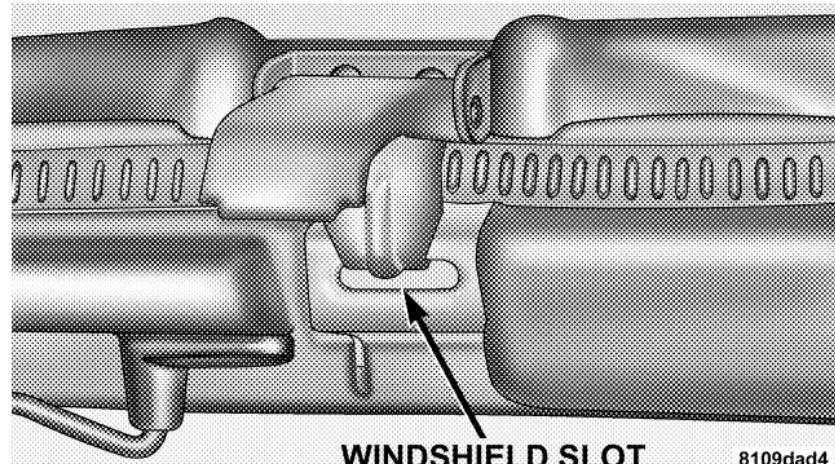
13. Unclip and move the sun visor to the side.



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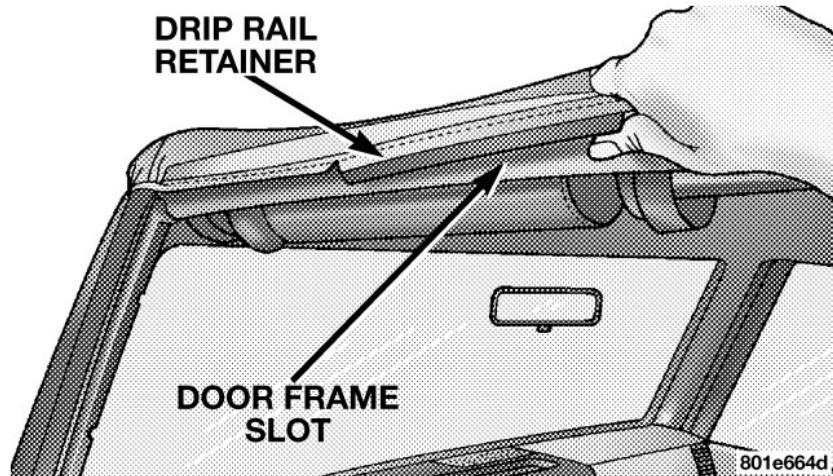
14. Open the header latches and engage the hooks on each side into the windshield slot.

**NOTE:** Do not latch at this time.

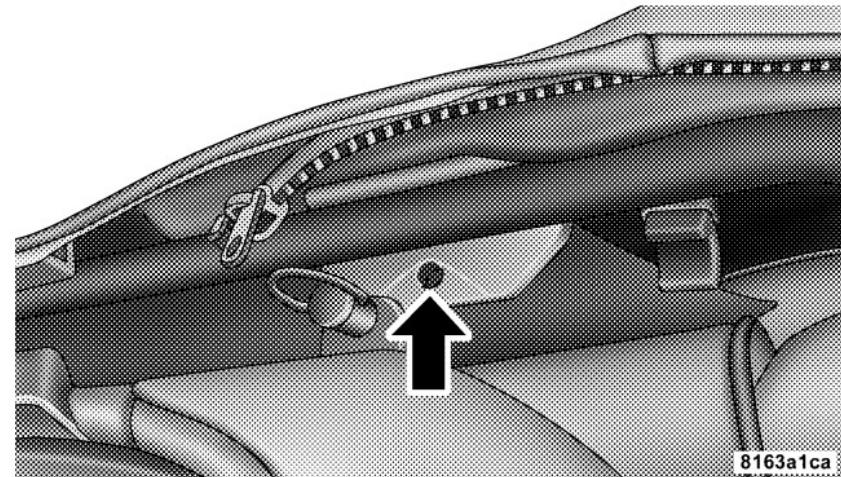


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15. Grasp the drip rail retainers and untuck them from the door frame. The soft top fabric should cover the header completely from one side to the other. This may require you to pull some of the fabric down and around the corners. Repeat this step for the other side.

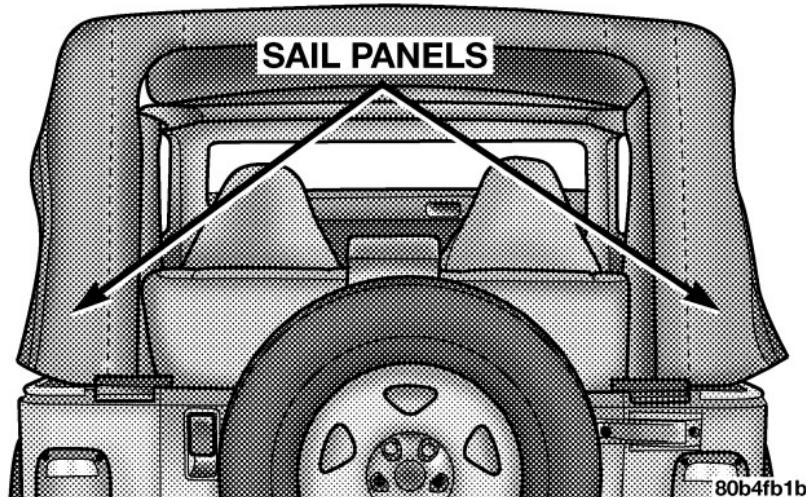


**For Unlimited Models** — Pull the side bow forward and down. Make certain the blocks on the side bows line up with the retainers on the door rails. Ensure the blocks are locked in place.



**NOTE:** Do not tuck the drip rail retainers into the frame at this time.

16. Move to the rear of the vehicle and gently pull the sail panels over the 3 bow letting them hang down. Make sure the nylon check straps between the 2 bow and 3 bow are not twisted or wrapped around the 2 bow. Move to the rear of the vehicle and gently pull the rear corners (sail panels) over the 3 bow letting them hang down.

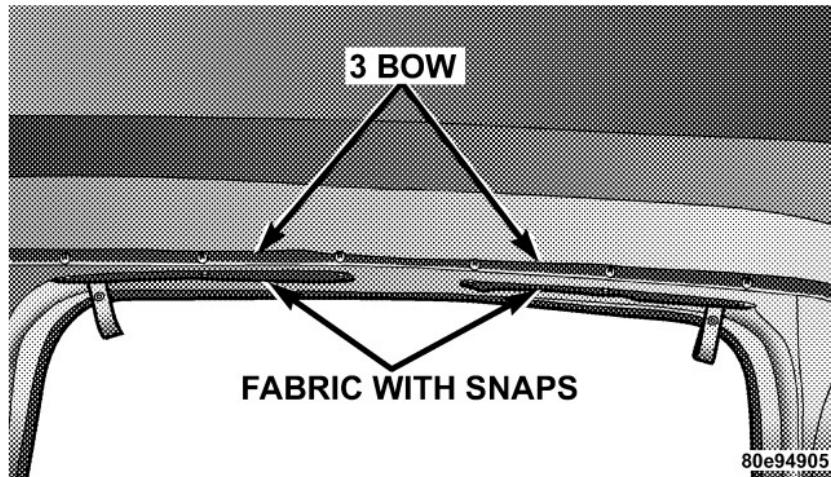


**NOTE:** Do not tuck the sail panel retainers at this time.

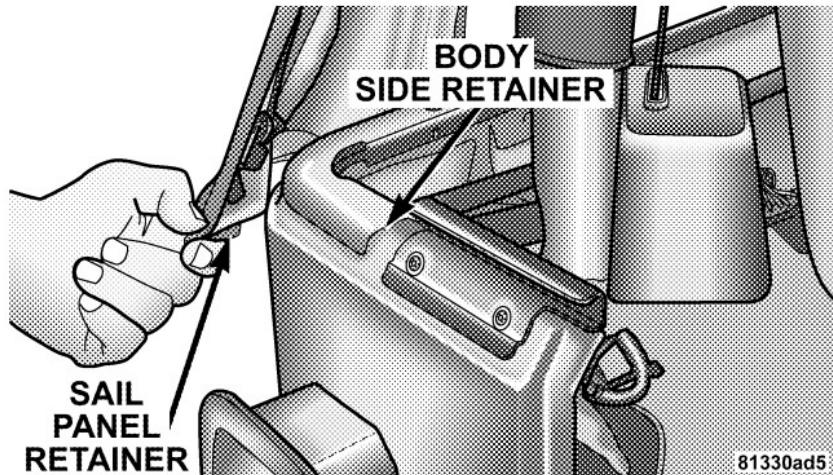
17. Enter the vehicle and sit in the rear seat. Look up at the 2 bow, and attach the Velcro® around it. Exit the vehicle, and move to the rear of the vehicle. Fold the rear seat and sit in the rear cargo area.

**For Wrangler Models —** Look up at the 3 bow and locate the four snaps on the 3 bow. Grasp the fabric rearward of the 3 bow (fabric contains snaps), and pull it up and around, attaching all four snaps.

**For Unlimited Models** — Look up at the 3 bow and remove the four screws. Grasp the fabric rearward of the 3 bow, and pull it up and around, reinstalling all four screws through the existing fabric holes. (Refer to the Instruction Sheet in the soft top for additional information and photos).

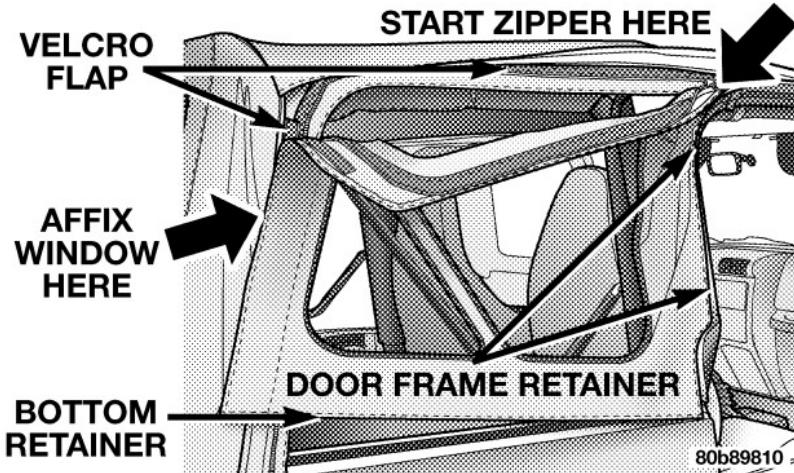


18. Align the sail panel retainer to the edge of the body side retainer at the rear. Tuck the sail panel into the body side retainer beginning from the rear and working to the corner. Tuck the retainer around the corner and continue forward.

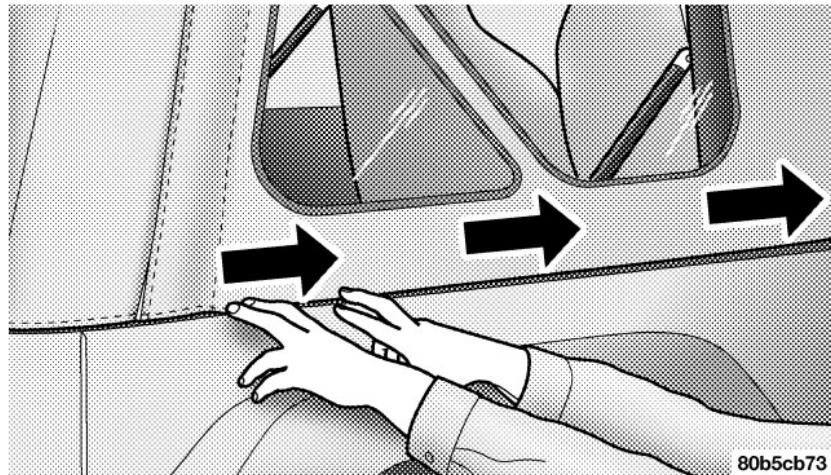


**NOTE:** This may be difficult due to fabric tension. If difficulty is experienced with fabric tension, place your hand on top of the 3 bow and gently pull down to help tuck in the sail panels.

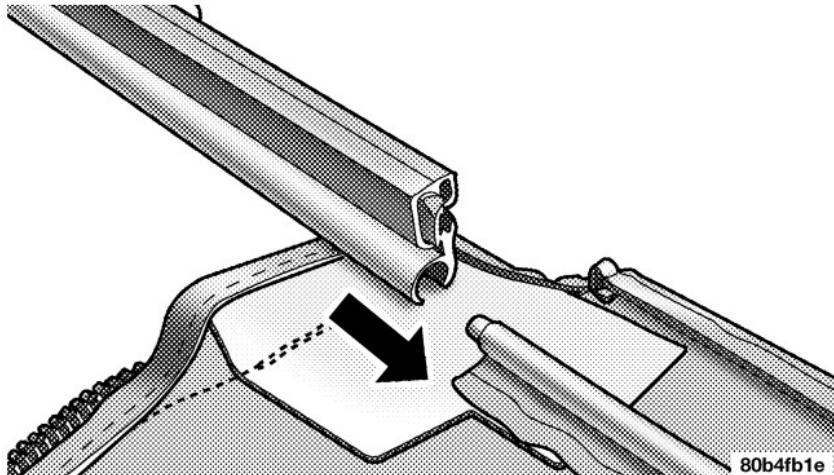
19. To install the quarter windows, affix the rear corner of the quarter window temporarily to the Velcro®. Start and zip the zipper only about 1 inch (2.5 cm). At this time, it is necessary to tuck in the door frame retainer. After the door frame retainer has been tucked in completely, remove the window from the Velcro® and finish zipping in the window. Tuck and secure the Velcro® flaps which are above and to the rear of the quarter window. Repeat this step for the other side.



20. Tuck in the bottom retainers on the quarter windows into the bodyside retainer, beginning from the rear and working to the front of the vehicle. Repeat this step for the other side.

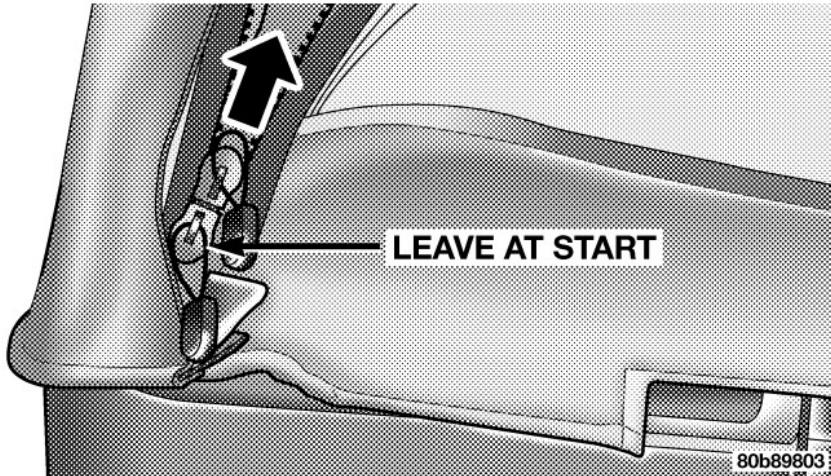


**NOTE:** To assist in getting the rear window zippers started, lay the bar inside the vehicle on the wheel wells and uninstall half of the left sail panel from the bodyside retainer, beginning near the tailgate to expose zipper ends.

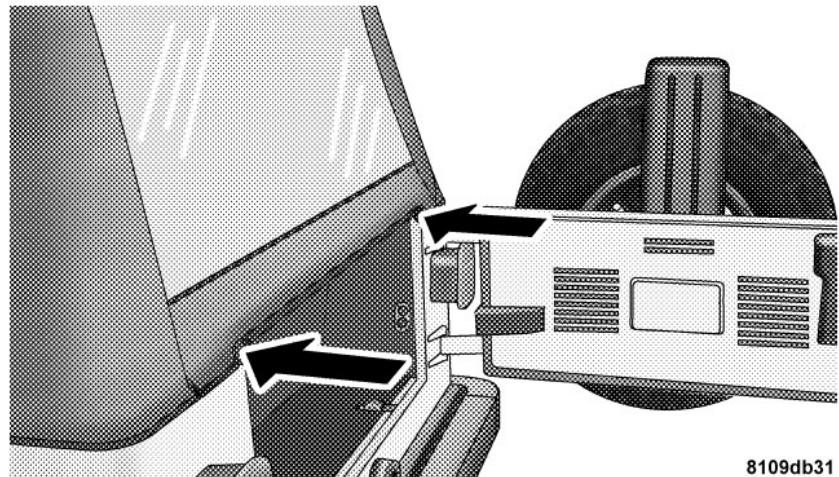


21. Locate the black retainer bar that was set aside, and the rear window. Remove and discard the end caps. Slide the retainer bar over the receiver at the bottom inside of the rear window with the bulky seal away from you.

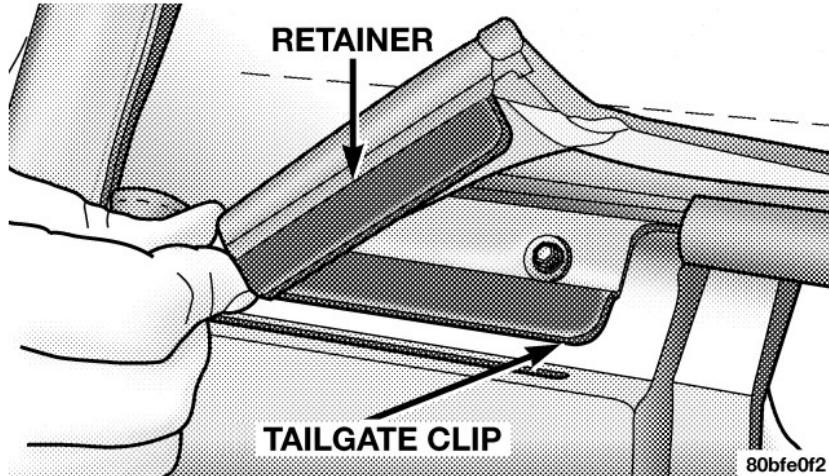
22. Zip the rear window beginning from the left using both zipper ends. Run the upper zipper around the window to the right side leaving the lower zipper end at the start on the left.



23. Tuck in the retainer bar ends into the tailgate clips on each side of the tailgate opening.

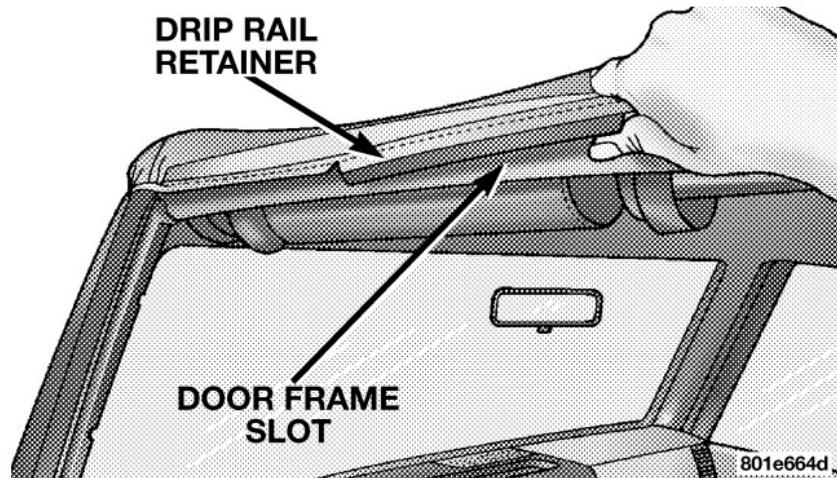


24. Tuck the lower retainers on both sides of the rear window under the tailgate clips. Reinstall the left sail panel if it was untucked to get the rear window zipper started.



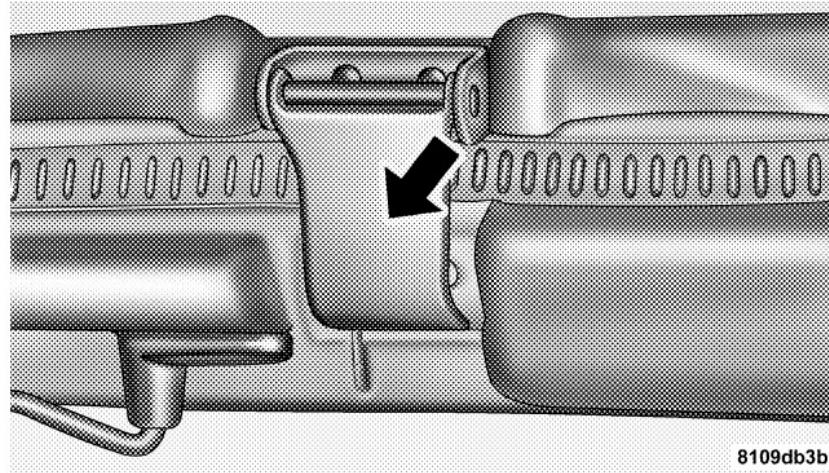
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25. Tuck the drip rail retainers into the door frame slots above the door on both sides.



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26. Close the header latches and return the sun visor to its secure position.



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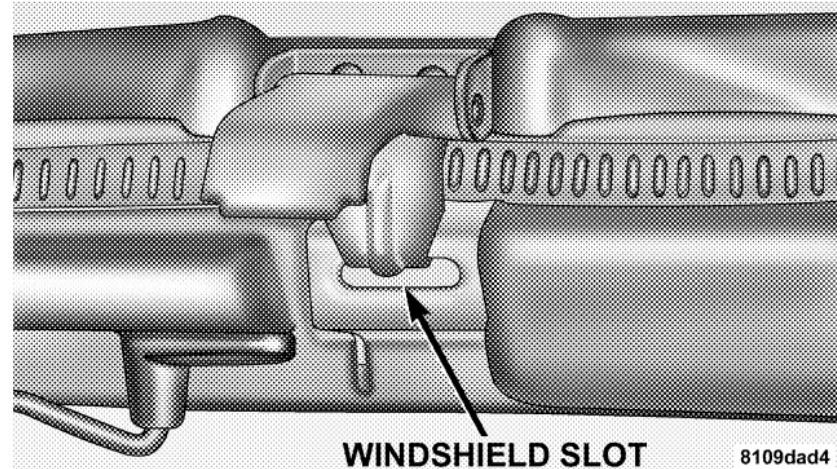
## HARD TOP

### CAUTION!

- The hard top is not designed to carry any additional loads such as roof racks, spare tires, building, hunting, or camping supplies, and/or luggage, etc. Also, it was not designed as a structural member of the vehicle, and thus cannot properly carry any additional loads other than environmental (rain, snow, etc.).

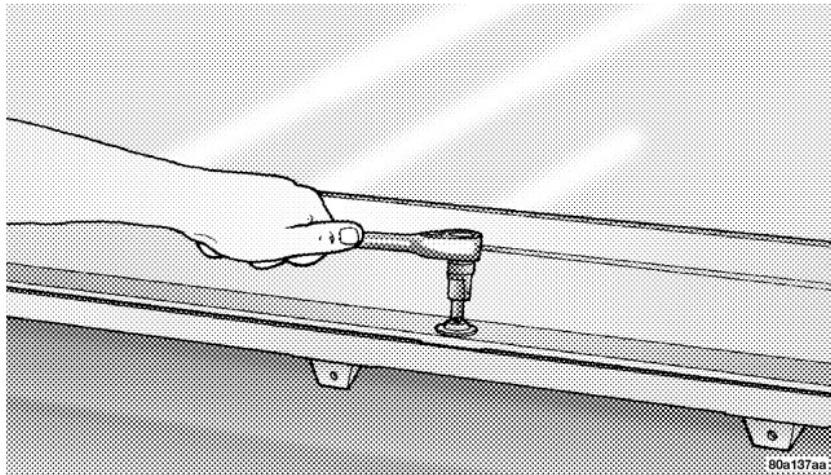
**CAUTION!**

**Do not move your vehicle until the top has been either fully attached to the windshield frame and bodyside, or fully removed.**

**Hard Top Removal**

1. Fold down the sun visors and move them to the side.
2. Unlatch the two hard top latches located at the top of the windshield.

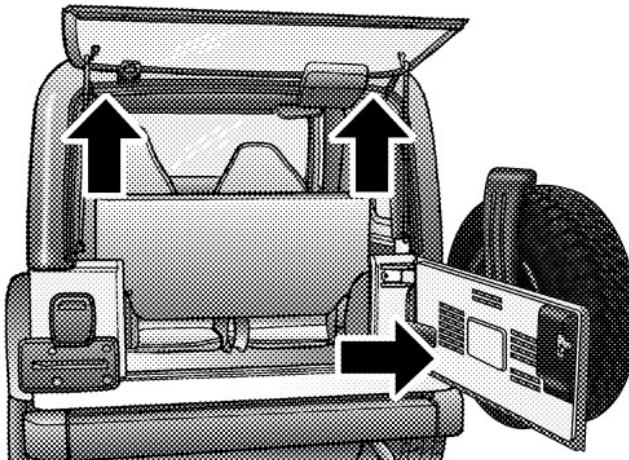
3. Unbolt the six Torx® head screws which secure the hard top to the vehicle using a #40 Torx® head driver.

**CAUTION!**

When removing the 2 front screws just rearward of the doors, make sure that the nut does not fall into the seat belt retractor. Grasp the nut to prevent this from occurring.

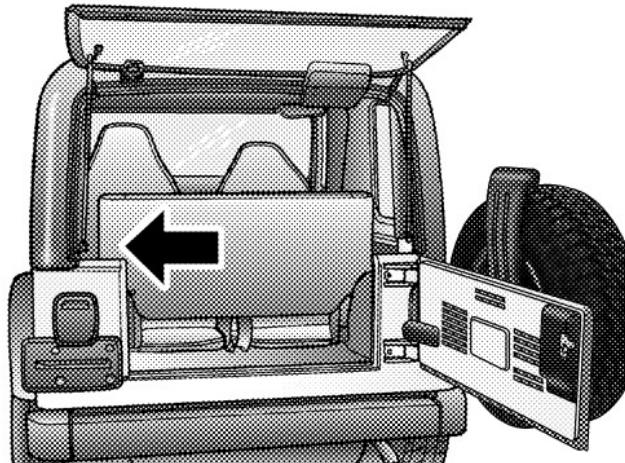
**NOTE:** On a dual top vehicle, the two rear and center nuts are retained onto the bodyside.

4. Open both doors.
5. Open tailgate all the way to ensure clearance of the rear window glass. Lift rear window glass.

**3**

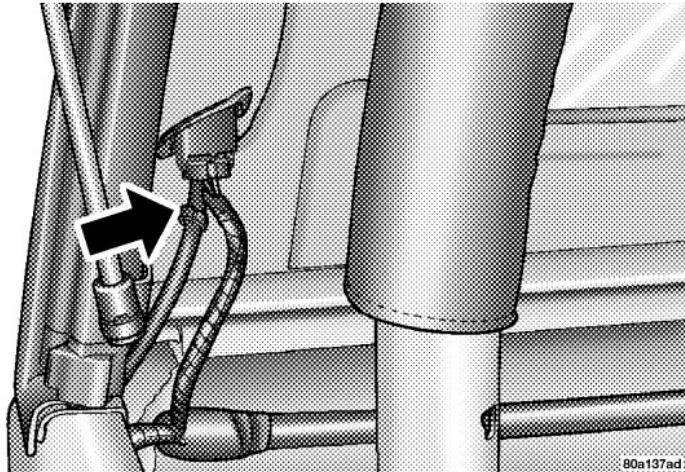
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6. Locate the wiring harness at the rear left side corner of the vehicle.



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7. Disconnect the washer hose and install the tethered cap.



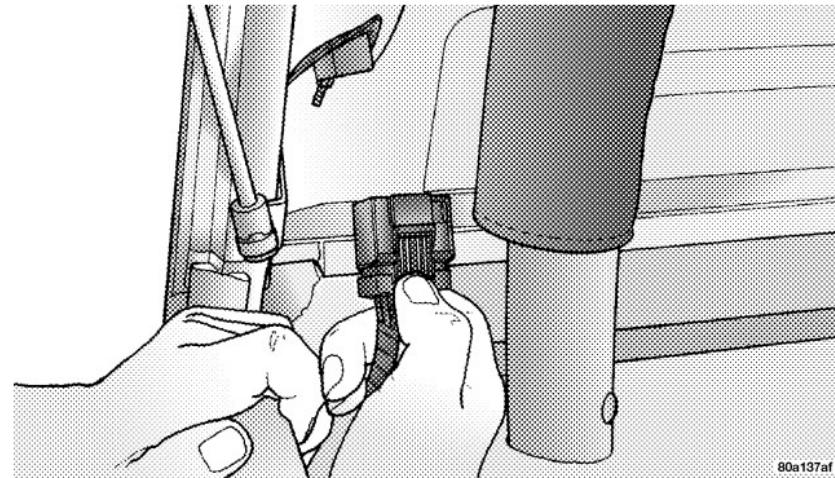
80a137ad:

**CAUTION!**

Make sure storage cap is installed to prevent foreign materials from entering tube and clogging system.

8. Disconnect the wire harness from the hard top by pressing the tab at the side of the connector and pulling to disconnect.

**NOTE:** If the red latch on the connector is locked, push the red latch to the right until you can only see the latch on one end (right) of the connector. This will unlock connector tab, allowing the tab to be pressed down and enabling the harness to be disconnected from the hard top.



9. Remove the hard top from the vehicle.

**NOTE:** If the doors are to be removed, pull the #4 fuse from the fuse block to prevent dome lamp illumination.

## Hard Top Installation

**NOTE:** If the door frames are installed from soft top usage, they must be removed prior to installation of the hard top.

1. Inspect the hard top seals for damage and replace if necessary.
2. Install the hard top using the same steps for removal in reverse order.

**NOTE:** The hard top must be positioned properly to ensure sealing. Set the hard top on the windshield frame so that there is no overhang. Also, make sure that the hard top is sitting flush with the body at the sides and check to ensure that there is a uniform gap between the lift glass and hard top.

## SOFT TOP

### CAUTION!

- The soft top is not designed to carry any additional loads such as roof racks, spare tires, building, hunting, or camping supplies, and/or luggage, etc. Also, it was not designed as a structural member of the vehicle, and thus cannot properly carry any additional loads other than environmental (rain, snow, etc.).

If the temperature is below 72°F (24°C) and/or the top has been folded down for a period of time, the top will appear to have shrunk when you raise it, making it difficult to put up. This is caused by a natural contraction of the vinyl coating on the fabric top.

Place the vehicle in a warm area. Pull steadily on the top fabric. The vinyl will stretch back to its original size and the top can then be snapped into place. **If temperature is 41°F (5°C) or below, do not attempt to put the top down or roll the rear or side curtains.**

## CAUTION!

- Do not run a fabric top through an automatic car wash. Window scratches and wax build up may result.
- Do not lower the top when the temperature is below 41°F (5°C). Damage to the top may result.
- Do not lower the top when the windows are dirty. Grit may scratch the window.
- Do not move your vehicle until the top has been either fully attached to the windshield frame, or fully lowered.
- Do not lower the top with the windows installed. Window and top damage may occur.
- Refer to "Appearance Care for Fabric Top Models" in Section 7 of this manual. It contains important information on cleaning and caring for your vehicle's fabric top.

**WARNING!**

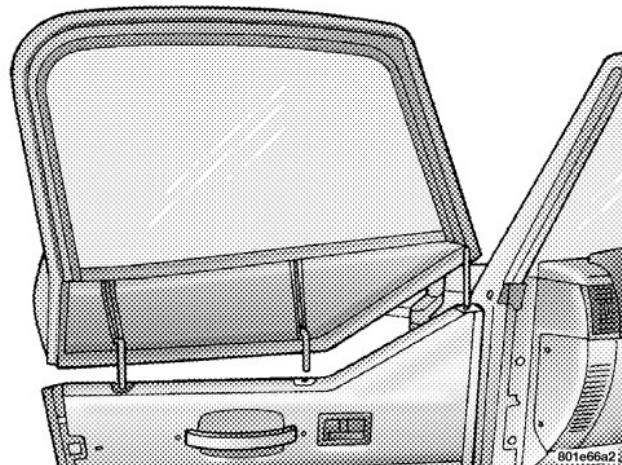
- **Do not drive vehicle with rear window curtain up unless side curtains are also open. Dangerous exhaust gases which can kill could enter the vehicle.**
- **The fabric upper doors and fabric top are designed only for protection against the elements. Do not rely on them to contain occupants within the vehicle or to protect against injury during an accident. Remember, always wear seat belts.**

**Folding Down The Soft Top**

**NOTE:** Clean side and rear windows before removal to assist in preventing scratching during removal of the soft top. If zippers are difficult to operate due to road dust,

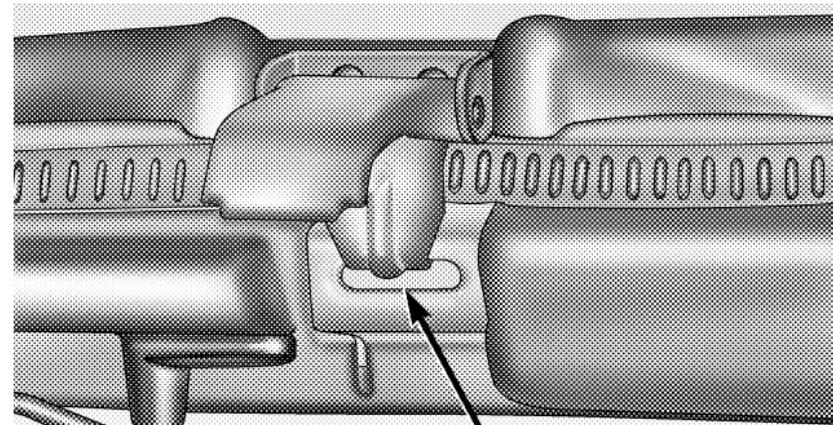
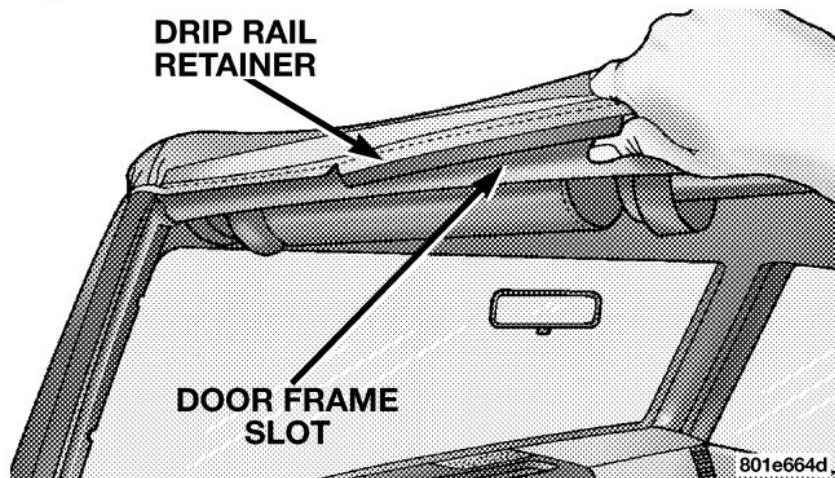
etc., clean them with a mild soap solution and a small brush. Cleaning products are available through your authorized dealer.

1. If your vehicle has half doors, remove each half door window by opening the door and lifting the half door window out.

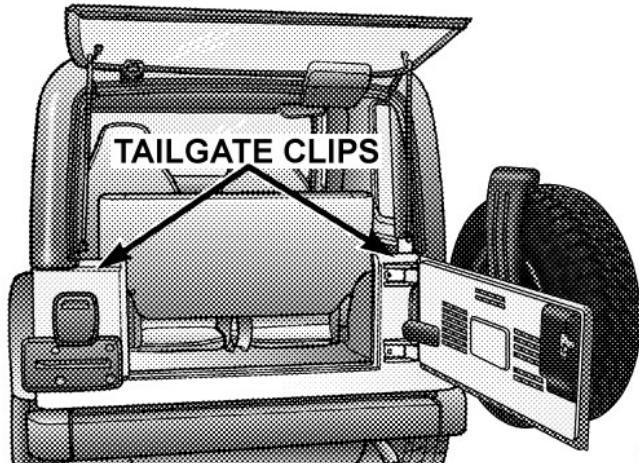


**NOTE:** Stow half doors carefully outside of the vehicle, never inside to avoid scratches.

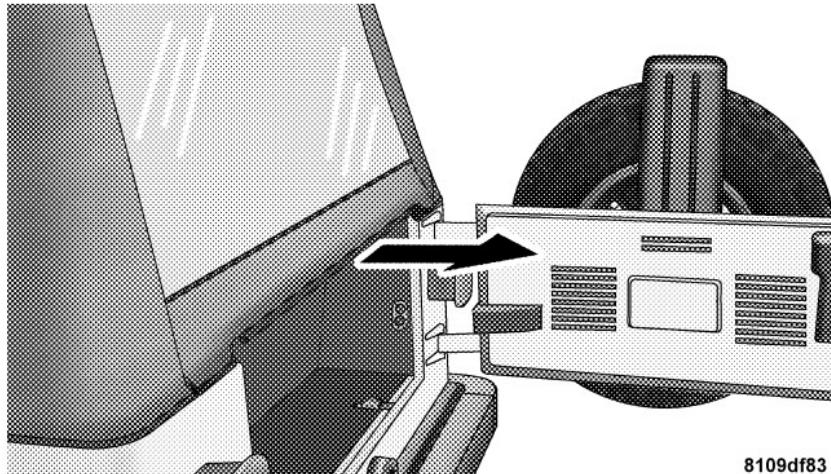
2. Grasp the fabric of the top above the door frame. Pull down and out on the fabric to untuck the drip rail retainers from the door frame slot. Start with the rear retainer and work forward towards the windshield. Repeat this on the other side.



5. Open the tailgate, partially unzip the rear window on each side, and untuck the lower retainers on the window from the tailgate clips on both sides of the tailgate opening.

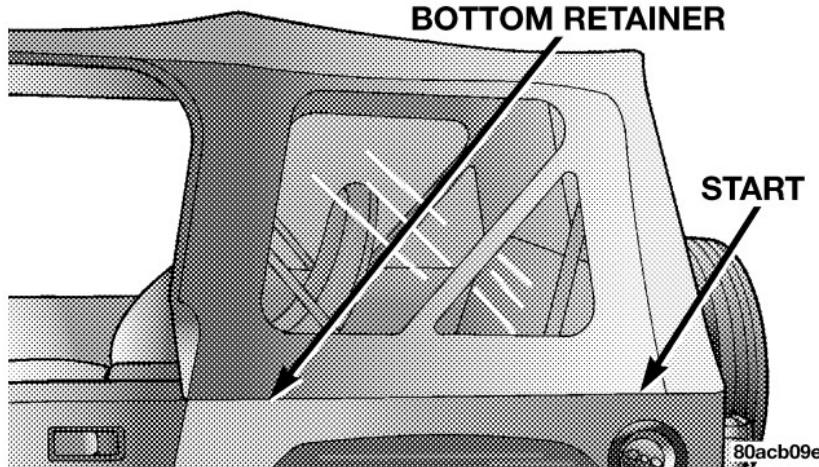


6. Pull the retainer bar straight out from the tailgate clips.



- Remove the rear window entirely. This is done by unzipping the window by bringing both the right zipper and left zipper tabs all the way to the end of the zipper track at the bottom left corner. Both zipper tabs will remain on the zipper track attached to the top. Pull up on the window to disengage zipper end. Stow the windows carefully to avoid scratching.

7. Beginning from the rear, moving forward, partially unzip the side window and untuck the bottom retainers.

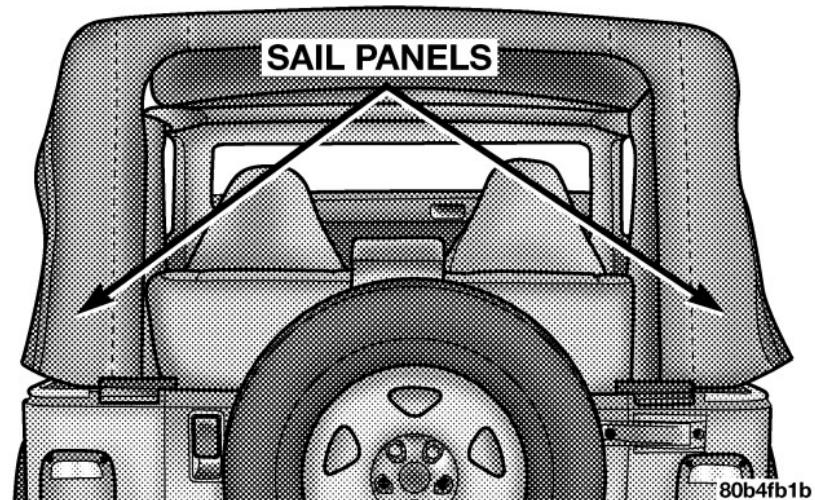


8. Finish unzipping the window and untuck from the door frame retainer at the front of the window, repeat this step on the other side.

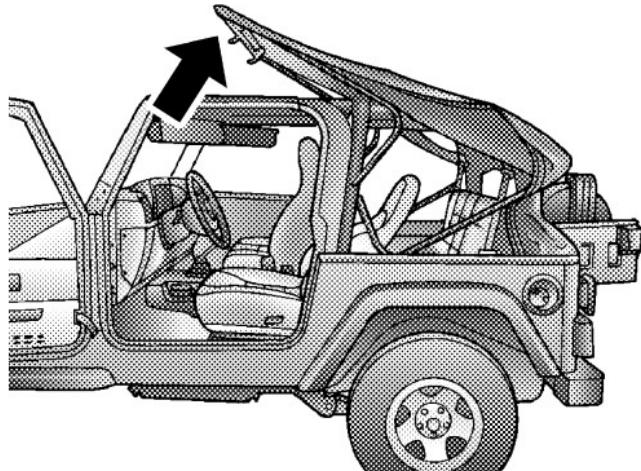
**NOTE:** Stow clean windows carefully outside of the vehicle to avoid scratches.

9. Untuck the sail panels from the bodyside retainer.

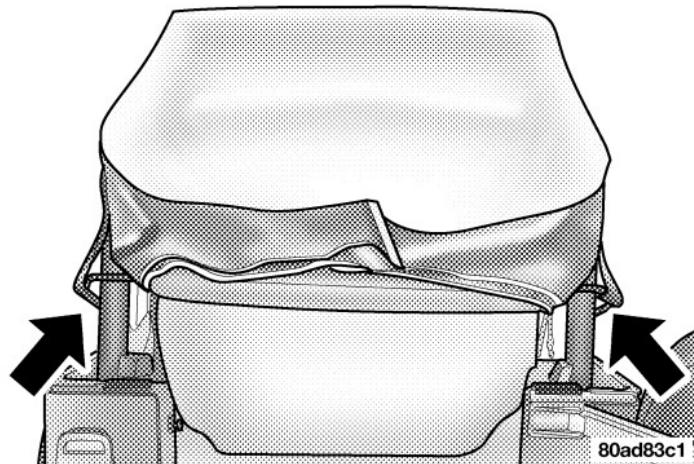
**NOTE:** If difficulty is experienced with fabric tension, place your hand on the rear upper corner of the top and pull down to help untuck the sail panels.



10. Completely release the hooks on the rear side of the windshield. Grasp the side bow behind the header and lift top back.



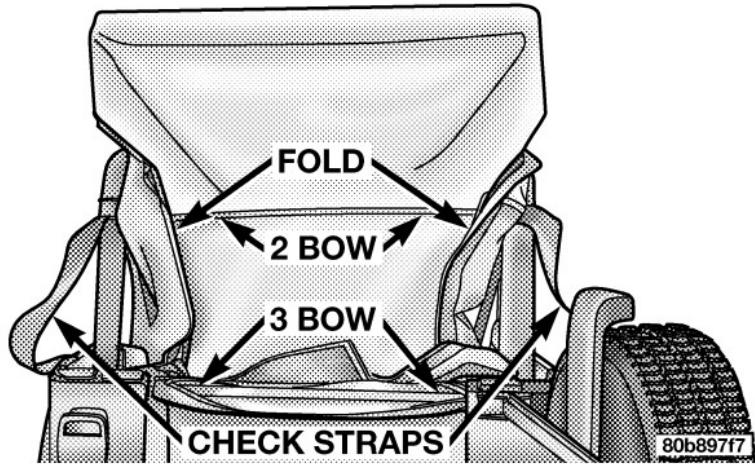
11. As you begin to lower the top, wrap the sail panels so that they rest on the roof of the vehicle.



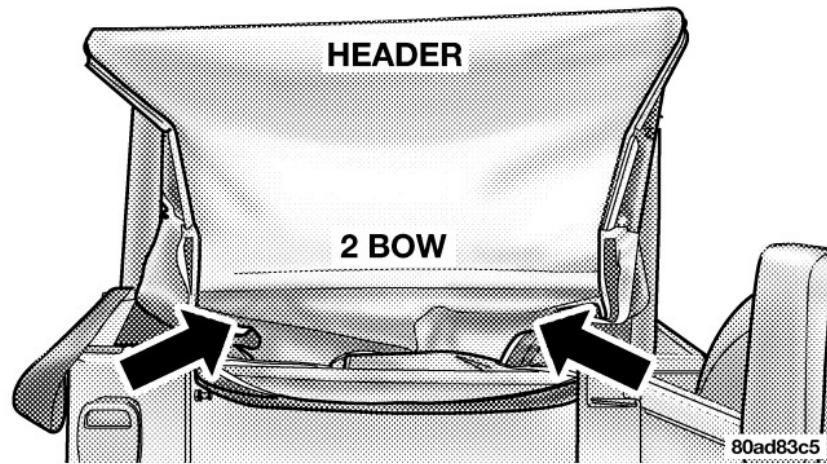
**NOTE:** If your vehicle is equipped with a Dual Top, prevent connector damage by ensuring that the hard top wire harness is folded back and secured to the main harness, using the attached Velcro® strap.

12. Make sure the sides of the top are folded inward as the top continues to fold, and that the check straps are clear of the vehicle.

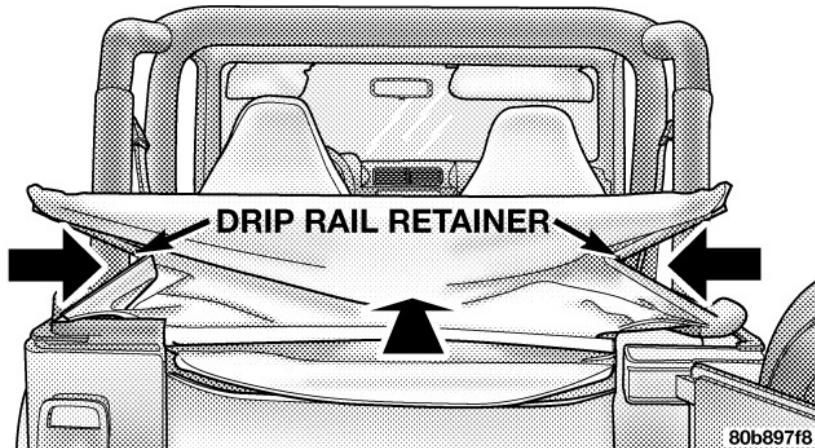
Tuck the top material between the 2 bow and the 3 bow as it folds.



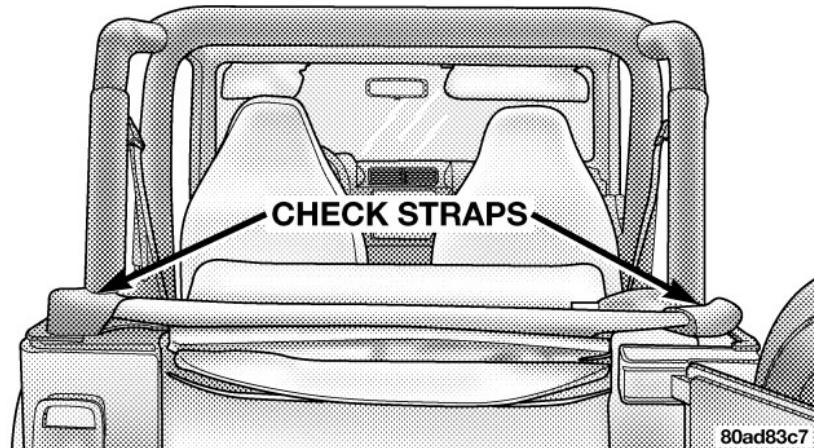
13. Tuck the top material between the 2 bow and the header.



14. After the top is folded down, ensure that the drip rail retainers are tucked in inward as shown. This is to avoid unnecessary wear to the fabric.



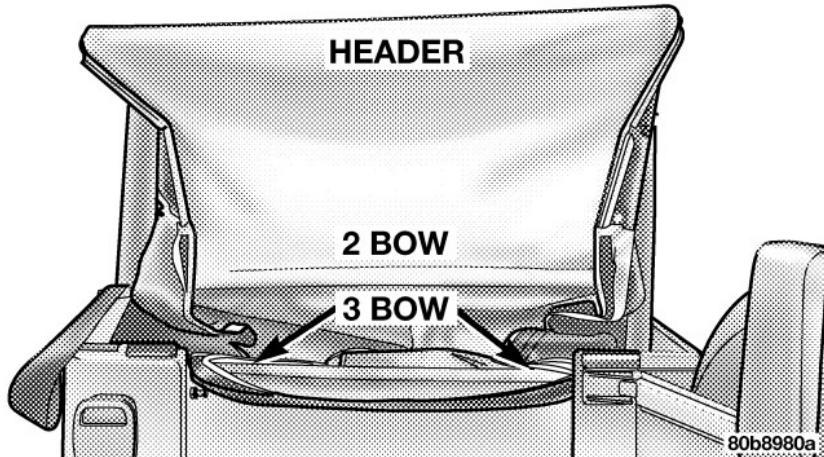
15. After the top is folded down, tuck the check straps so that they are not hanging and flapping outside the vehicle.



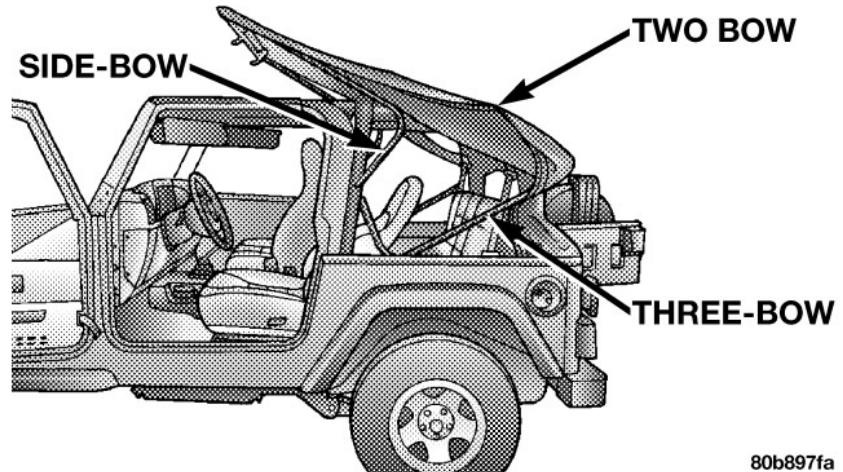
## Putting Up The Soft Top

**NOTE:** Be sure the wire harness is not attached to the soft top bows before you lift the top.

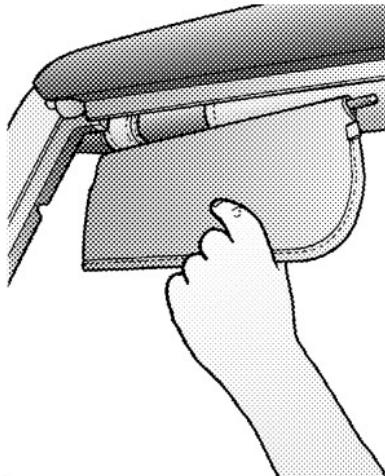
1. Begin working from the rear of the vehicle, with the tailgate open. Lift the plastic header (with latches) up and over the sport bar. As the header reaches the top, locate the 2 bow and push it up and over the sport bar.



2. Move to the side of the vehicle and pull the side bow forward and down. Be sure the check straps are not tangled around the 2 bow. You will see the 3 bow rise from the rear of the vehicle.

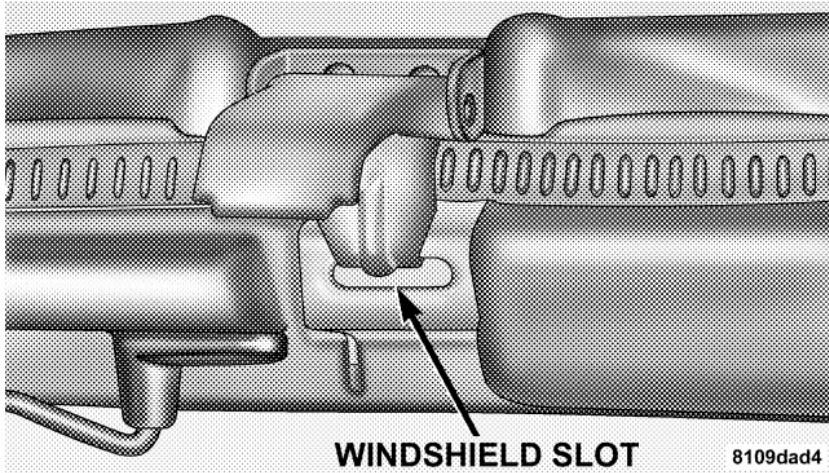


3. Unclip and move the sun visor to the side.



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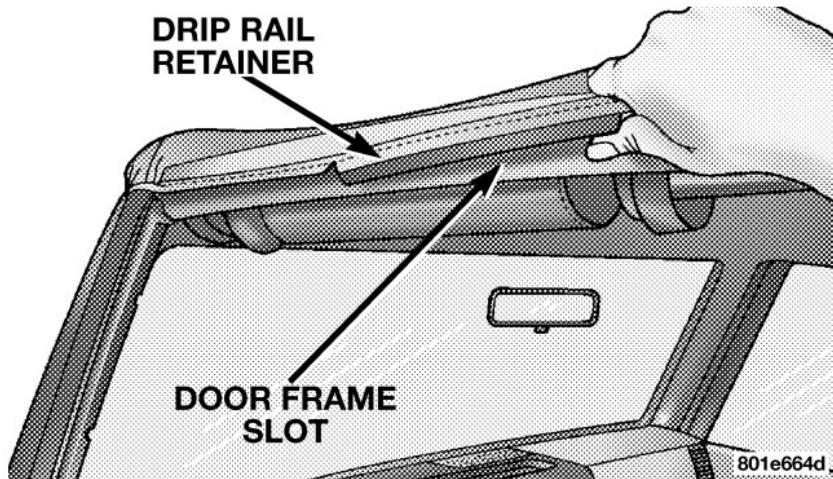
4. Open the header latches and engage the hook on each side into the windshield slot.



**WINDSHIELD SLOT**

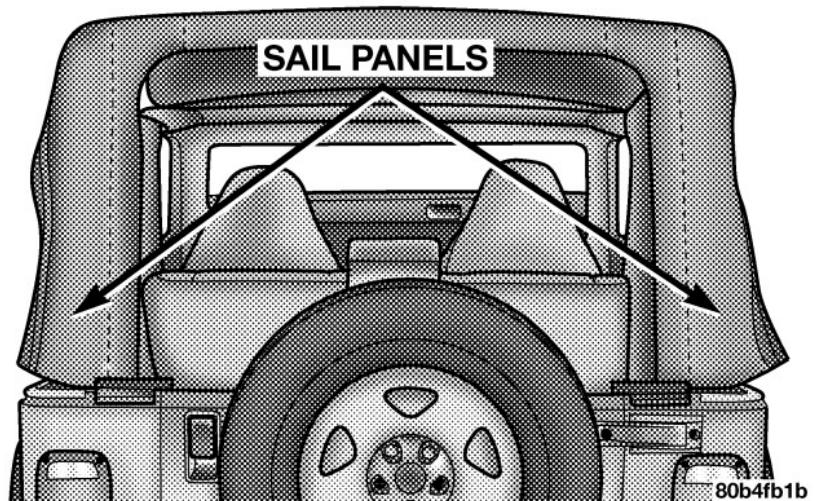
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5. Grasp the drip rail retainer and untuck them from the door frame.

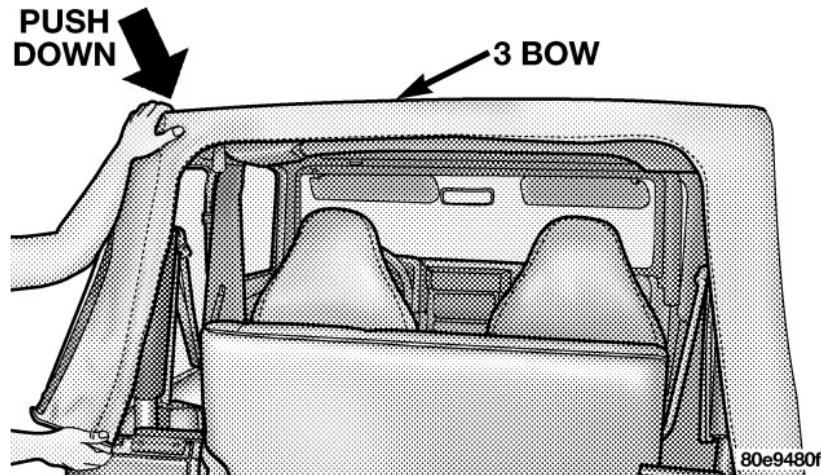


**NOTE:** Do not tuck the drip rails into the door frame at this time.

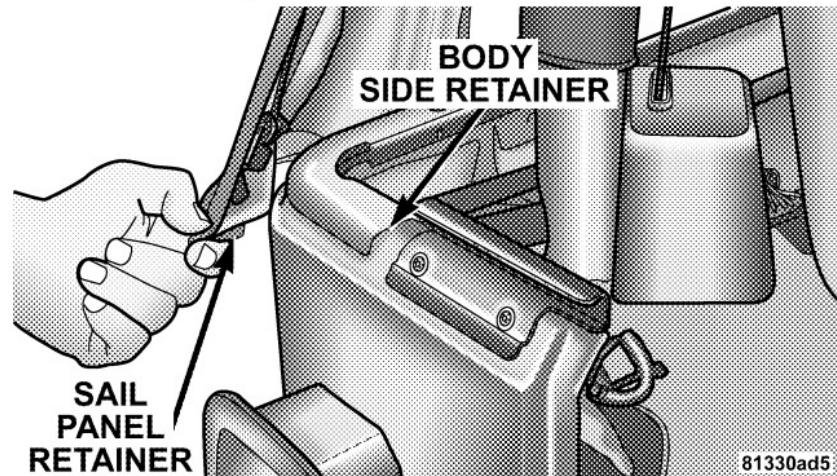
6. Move to the rear of the vehicle and gently pull the sail panels over the 3 bow letting them hang down.



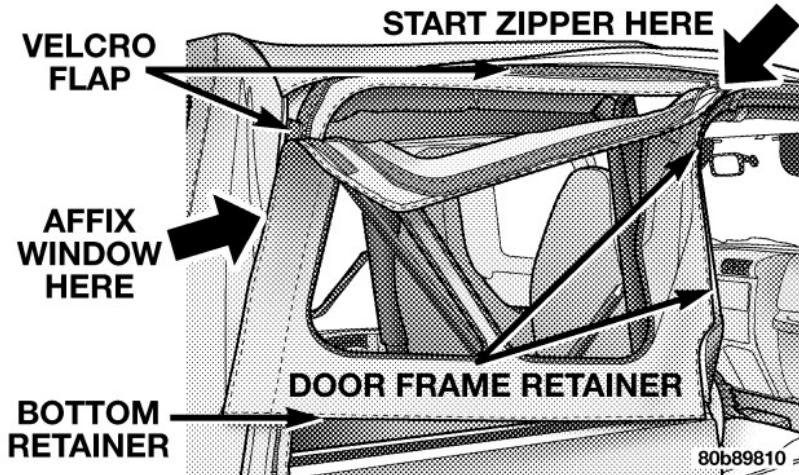
7. Align the sail panel retainer to the edge of the bodyside retainer at the rear. Tuck the sail panel into the bodyside retainer beginning from the rear and working to the corner. Tuck the retainer around the corner and continue forward.



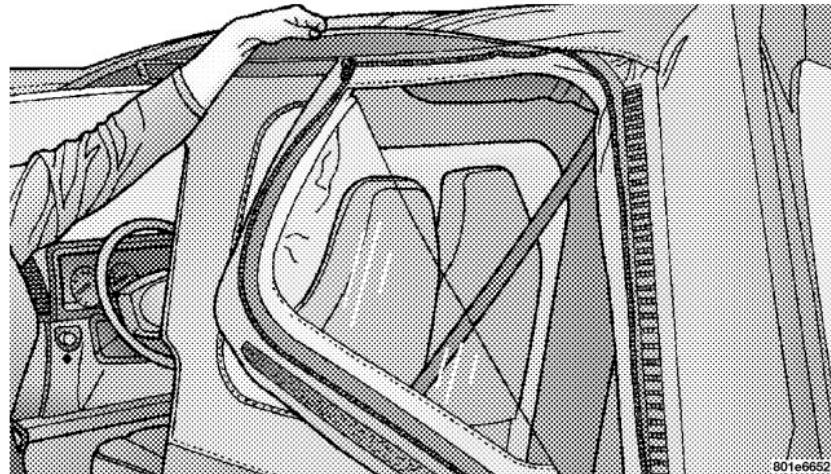
**NOTE:** This may be difficult due to fabric tension. If difficulty is experienced with fabric tension, place your hand on top of the 3 bow and gently pull down to help tuck in the sail panel retainers.



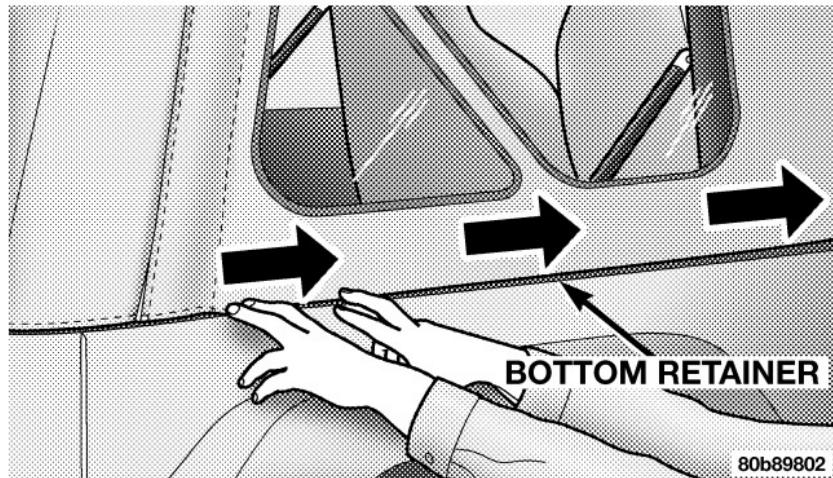
8. To install the quarter window, affix the rear corner of the window temporarily to the Velcro®. Start and zip the zipper only about 1 inch (2.5 cm). At this time it is necessary to tuck in the door frame retainer.



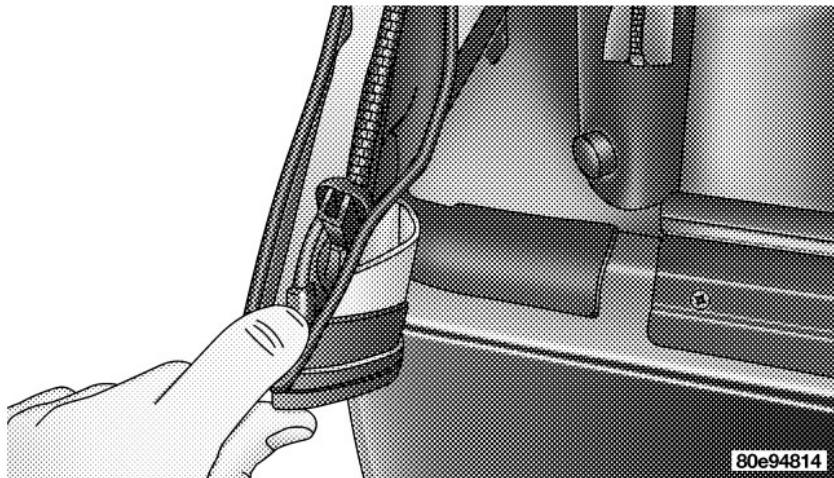
9. After the door frame retainer has been completely tucked in, finish zipping in the window. Then affix the Velcro® flaps around the window.



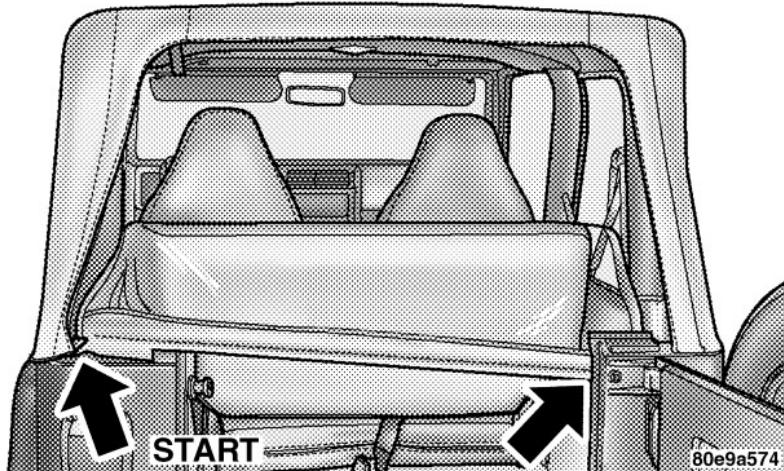
10. Tuck the bottom retainer of the quarter window into the bottom retainer, beginning from the rear and working to the front of the vehicle. Repeat this step for the other side.



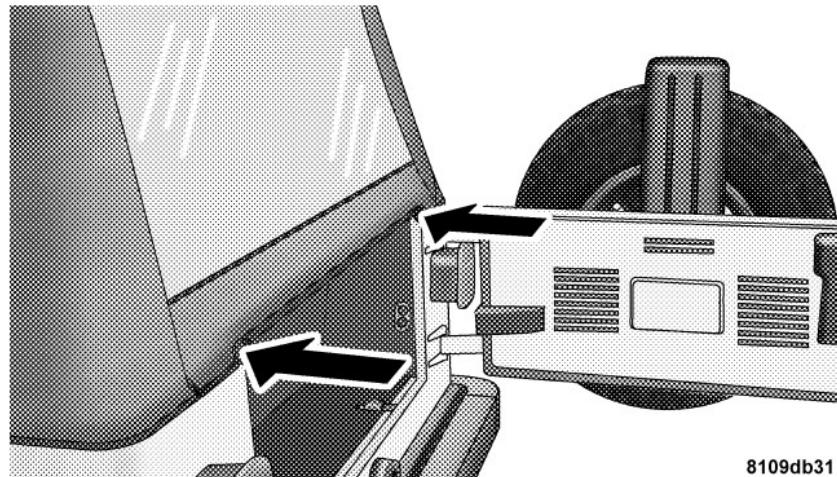
11. To assist in getting the zipper started, lay the retainer bar inside the vehicle on the wheel wells and uninstall half of the left sail panel from the bodyside retainer beginning at the tailgate to expose zipper ends.



12. Zip in the rear window beginning from the left using both zipper ends. Run the upper zipper around the window leaving the lower zipper at the start.

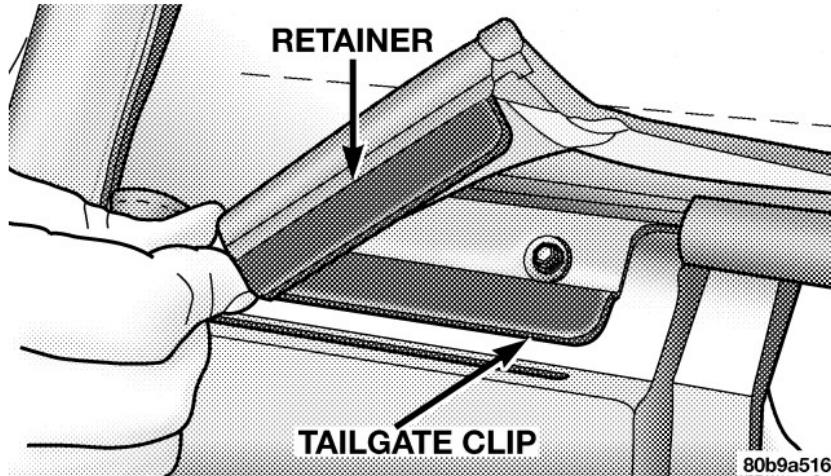


13. Tuck the retainer bar into the tailgate clips.

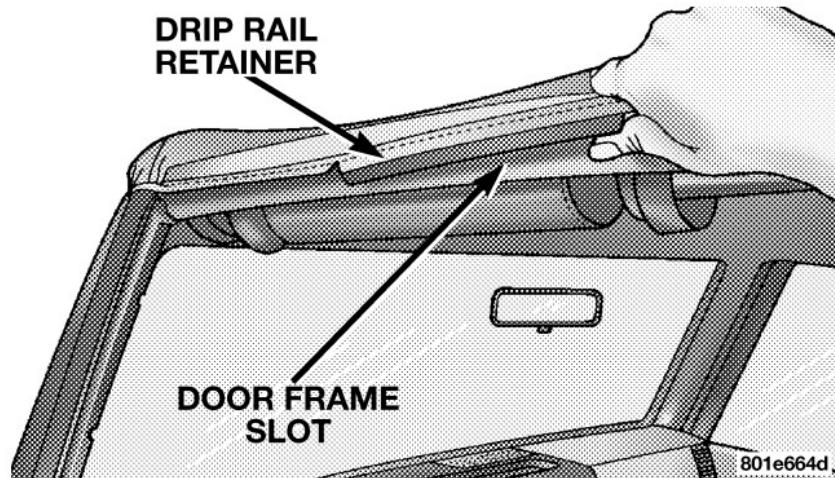


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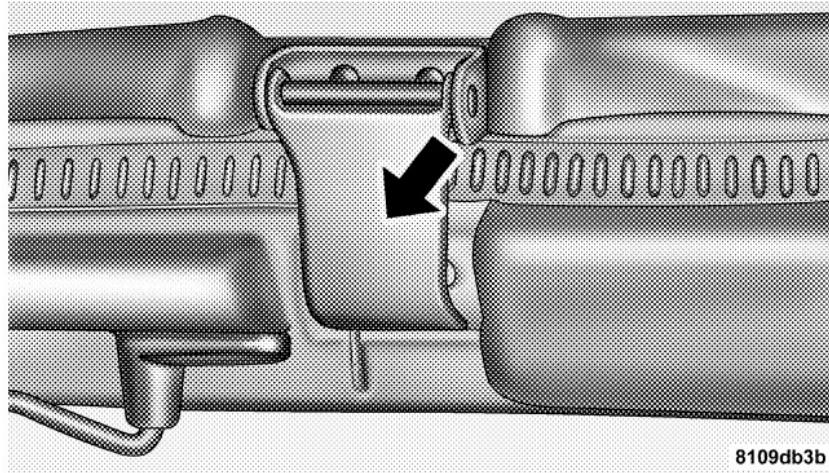
14. Tuck the lower retainers of the rear window under the tailgate clips. Reinstall the left corner if it was untucked to get the rear window zipper started.



15. Tuck the drip rail retainers into the door frame slot above the door on both sides.



16. Close the header latches and return the sun visor to its secured position.



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## SOFT TOP — SUNRIDER EQUIPPED MODELS

### CAUTION!

- The soft top is not designed to carry any additional loads such as roof racks, spare tires, building, hunting, or camping supplies, and/or luggage, etc. Also, it was not designed as a structural member of the vehicle, and thus cannot properly carry any additional loads other than environmental (rain, snow, etc.).

If the temperature is below 72°F (24°C) and/or the top has been folded down for a period of time, the top will appear to have shrunk when you raise it, making it difficult to put up. This is caused by a natural contraction of the vinyl coating on the fabric top.

Place the vehicle in a warm area. Pull steadily on the top fabric. The vinyl will stretch back to its original size and the top can then be snapped into place. **If temperature is 41°F (5°C) or below, do not attempt to put the top down or roll the rear or side curtains.**

### CAUTION!

- Do not run a fabric top through an automatic car wash. Window scratches and wax build up may result.
- Do not lower the top when the temperature is below 41°F (5°C). Damage to the top may result.
- Do not lower the top when the windows are dirty. Grit may scratch the window.
- Do not move your vehicle until the top has been either fully attached to the windshield frame, or fully lowered.
- Do not lower the top with the windows installed. Window and top damage may occur.
- Refer to "Appearance Care for Fabric Top Models" in Section 7 of this manual. It contains important information on cleaning and caring for your vehicle's fabric top.

**WARNING!**

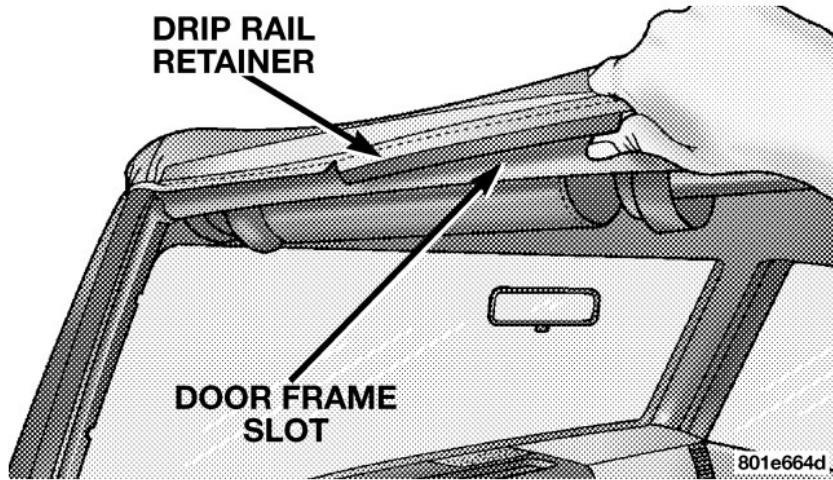
- Do not drive vehicle with rear window curtain up unless side curtains are also open. Dangerous exhaust gases which can kill could enter the vehicle.
- The fabric upper doors and fabric top are designed only for protection against the elements. Do not rely on them to contain occupants within the vehicle or to protect against injury during an accident. Remember, always wear seat belts.

**Folding Down The Soft Top**

**NOTE:** Clean side and rear windows before removal to assist in preventing scratching during removal of the soft top. If zippers are difficult to operate due to road dust, etc., clean them with a mild soap solution and a small brush. Cleaning products are available through your authorized dealer.

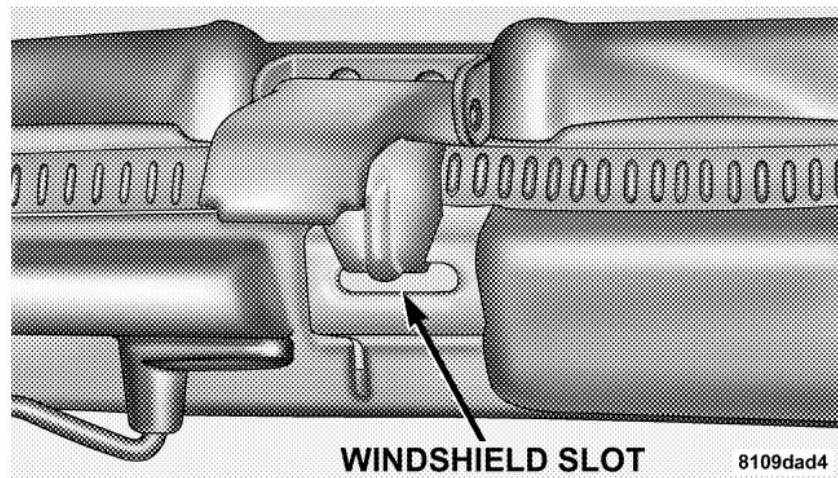
**NOTE:** Make sure the plastic sleeves are slid rearward to keep the Sunrider feature locked.

1. Grasp the fabric of the top above the door frame. Pull down and out on the fabric to untuck the drip rail retainers from the door frame slot. Start at the back of the rear drip rail retainer and work forward towards the windshield. Repeat this on the other side.



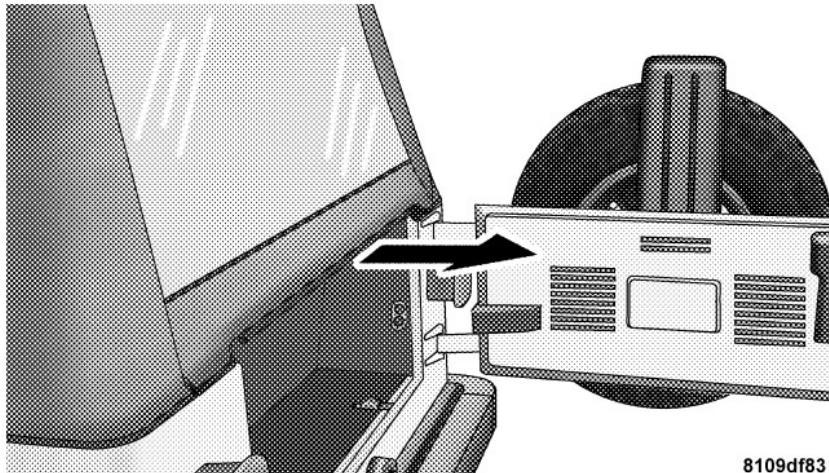
2. Unclip and move the sun visors to the side.

3. Release the header latches and hooks from the windshield slots.



4. Open the tailgate, partially unzip the rear window on each side, and untuck the lower window retainers from the tailgate clips on both sides of the tailgate opening.

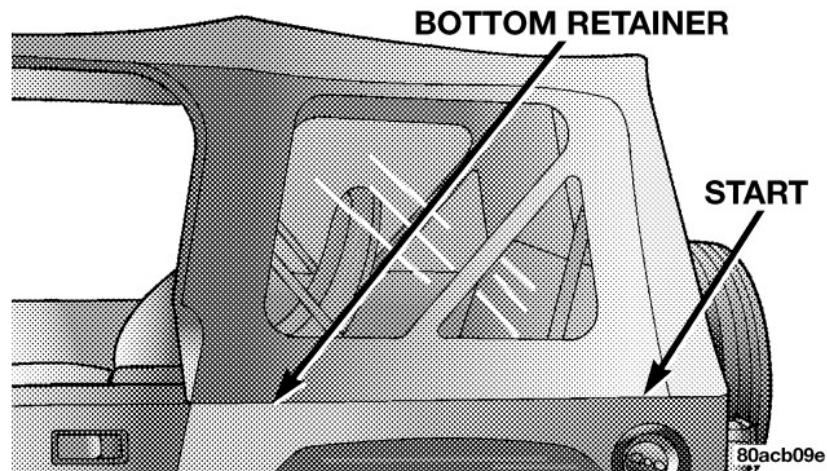
5. Grip and rotate the retainer bar up towards you to release it from the upper portion of the tailgate clips. The retainer bar runs along the bottom of the rear window.



6. Remove the rear window entirely. This is done by unzipping the window, bringing both the right zipper and the left zipper tabs all the way to the end of the zipper track at the bottom left corner. Both zipper tabs

will remain on the zipper track attached to the top. Pull up on the window to disengage zipper end. Stow window carefully to avoid scratching.

7. Undo the Velcro® that runs along the top and rear edge of the side window. Beginning from the rear and moving forward, partially unzip the side window and untuck the bottom retainer.

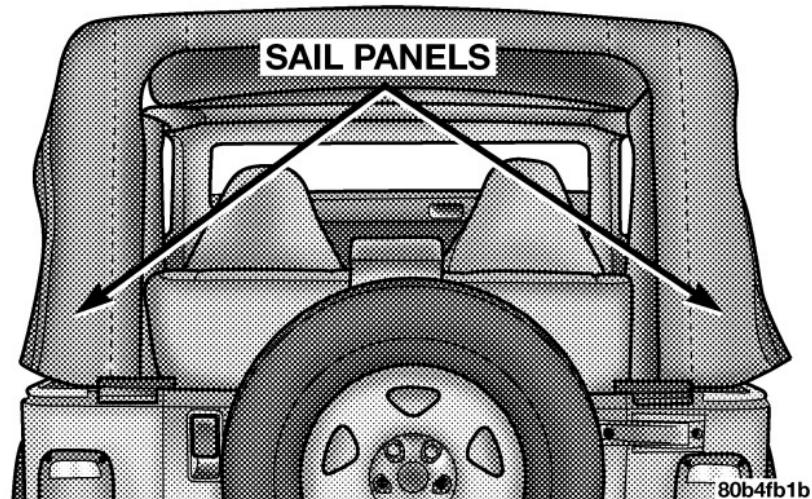


8. Finish unzipping the window and untuck from the door frame retainer at the front of the window, repeat this step on the other side.

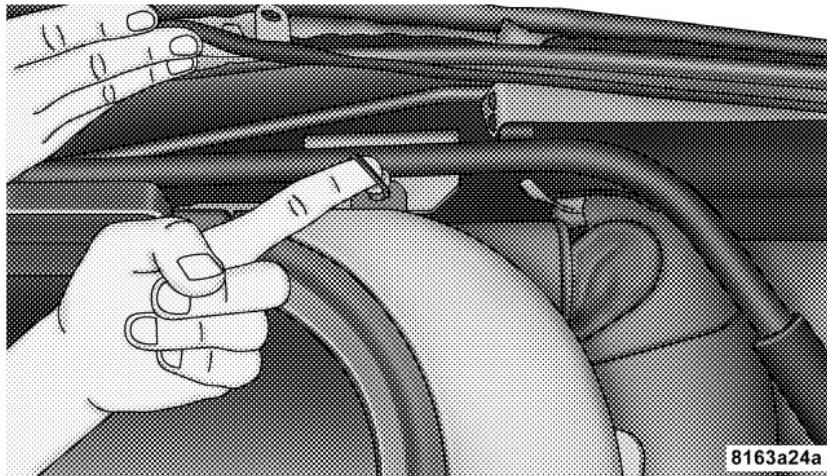
**NOTE:** Stow clean windows carefully outside of the vehicle to avoid scratches.

9. Untuck the sail panels from the rear corners of the vehicle.

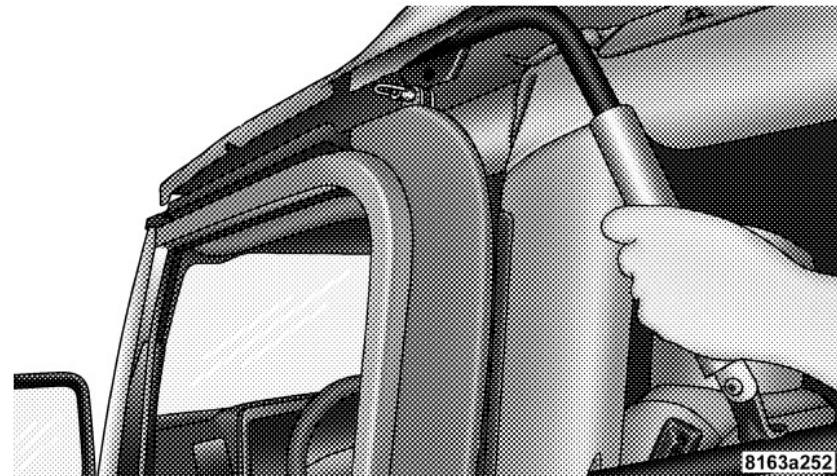
**NOTE:** If difficulty is experienced with fabric tension, place your hand on the rear corner of the top and pull down to help untuck the corners.



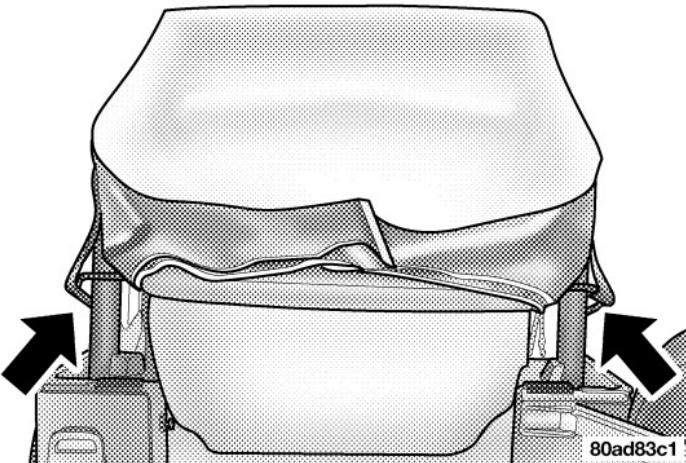
10. Release the Sunrider pins to release the top bows from the brackets located on both door rails. Push up and back on the bow slightly so it does not fall back and lock into the brackets.



11. Grasp the side bow behind the header and lift the top back.



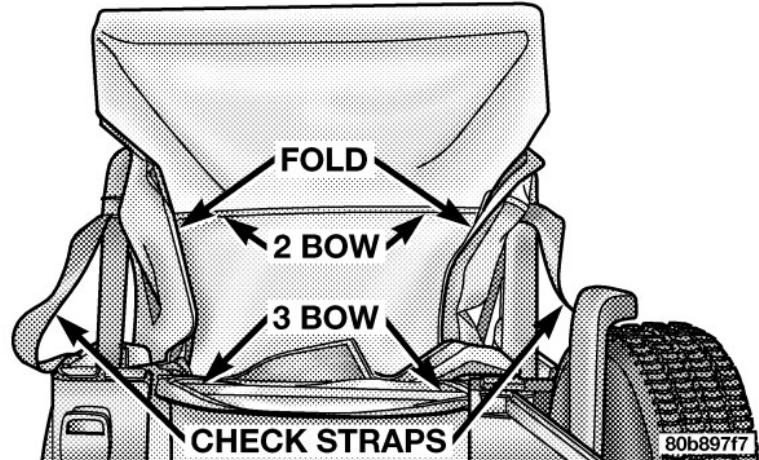
12. As you begin to lower the top, wrap the sail panels so that they rest on the roof of the vehicle.



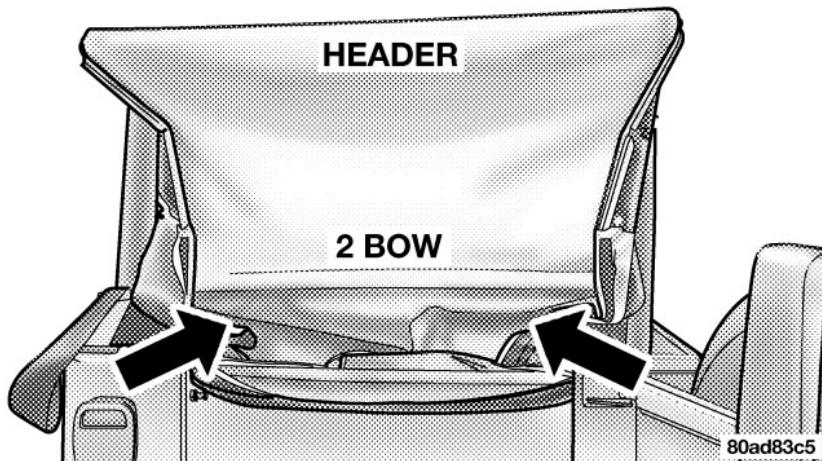
13. Make sure the sides of the top are folded inward as the top continues to fold, and check straps are clear of the vehicle.

**For Unlimited Models** — Tuck the top between the 2 bow and 2-1/2 bow and 2-1/2 bow and 3 bow as it folds.

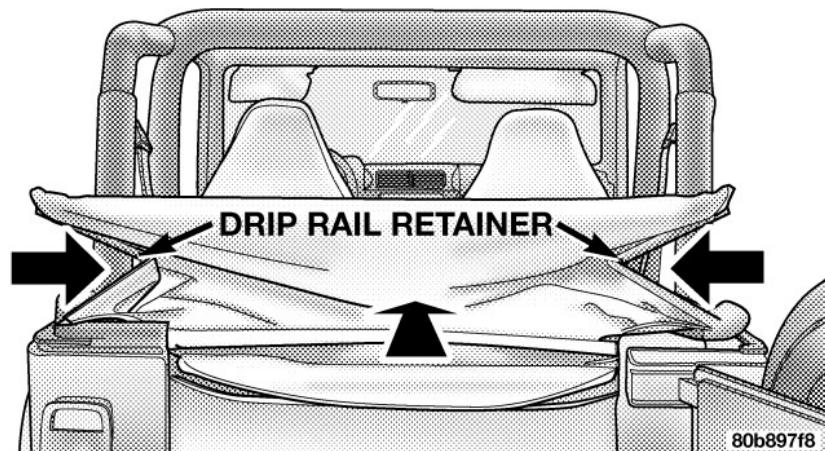
**For Wrangler Models** — Tuck the top between the 2 bow and 3 bow as it folds.



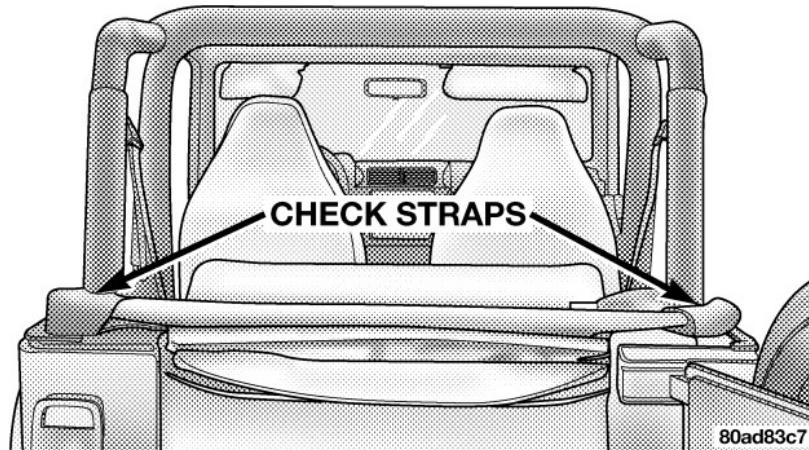
14. Tuck the top material between the 2 bow and the header.



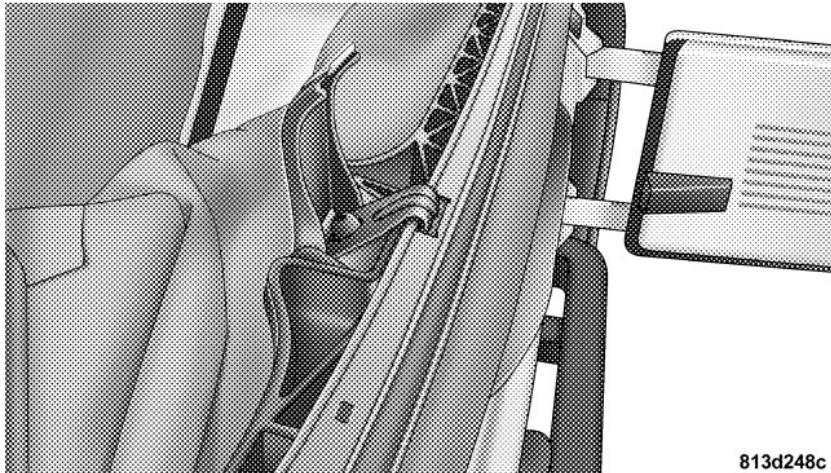
15. After the top is folded down, ensure that the drip rail retainers are tucked in inward as shown. This is to avoid unnecessary wear to the fabric.



16. After the top is folded down, tuck the check straps inside the rear corners of the vehicle. This will keep them from hanging and flapping outside the vehicle.



17. Hook the header latches back onto the header to keep them from rattling.

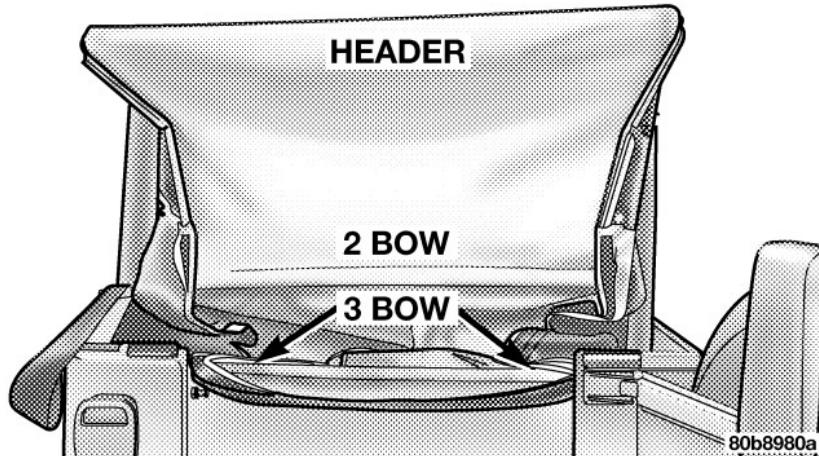


### Putting Up The Soft Top

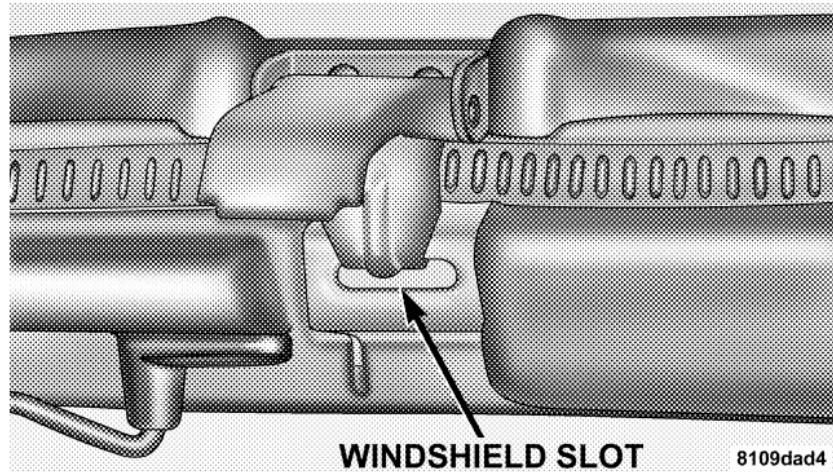
**NOTE:** Be sure the wire harness is not attached to the soft top bows before you lift the top. Make certain Sunrider sleeves are covering the Sunrider links.

1. Unhook the header latches from the plastic header.
2. Unclip and move the sun visors to the side.

3. Begin working from the rear of the vehicle with the tailgate open. Standing to the side of the vehicle, lift the top by the 2 bow and 3 bow over the sport bar.



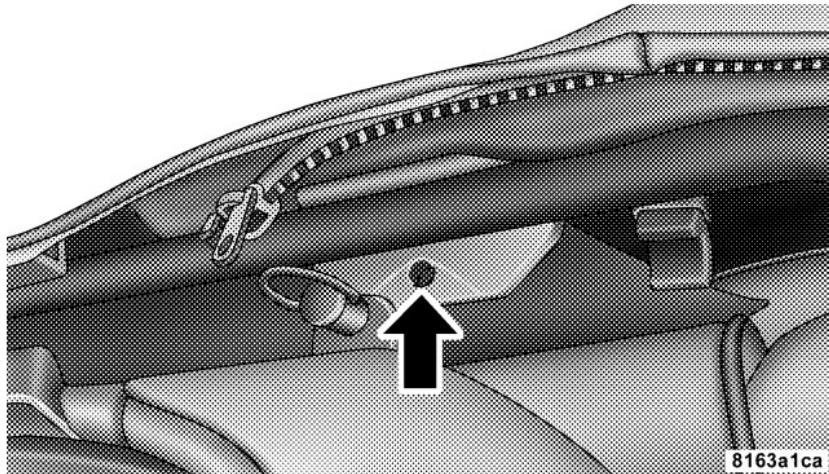
**For Wrangler Models —** You may need to pull the Sunrider pins on the door rails in order to engage the header latches into the windshield slots.



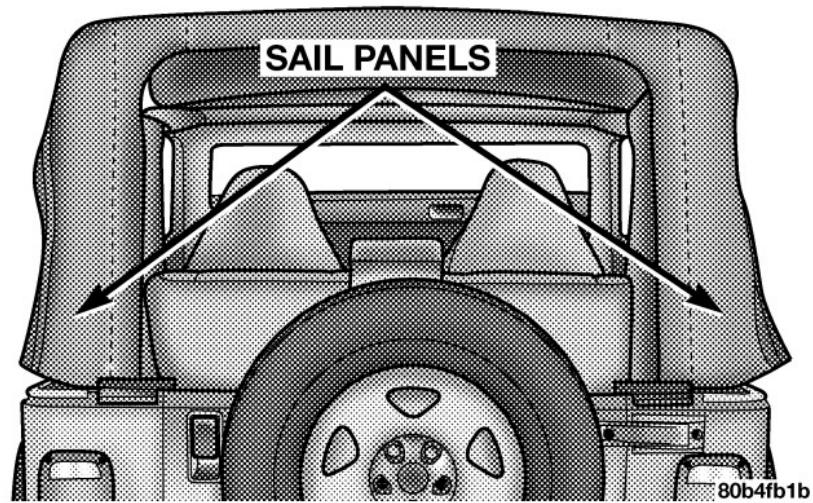
4. Engage the hooks on each side of the header into the windshield slots and fully engage the header latches.

**NOTE:** Grasp the drip rail retainers on each side and untrap them from the door frame. Do not tuck the drip rails into the door frame at this time.

5. Pull the side bow forward and down. Make certain the blocks on the side bows line up with the retainers on the door rails. Lock the blocks in place.

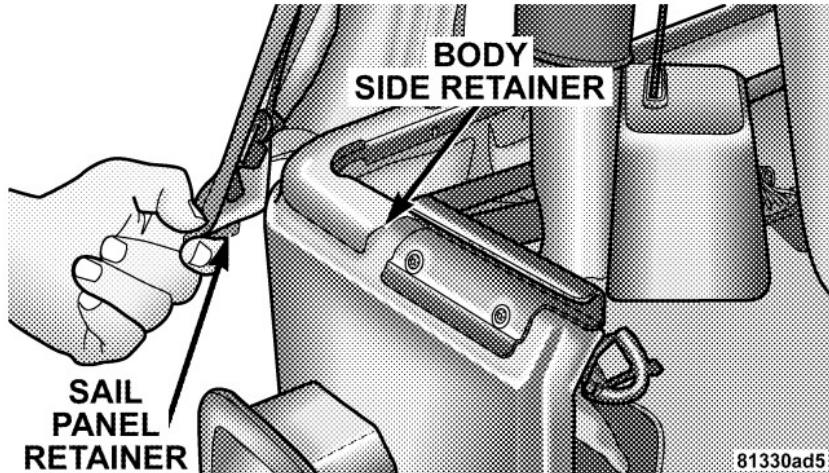


6. Move to the rear of the vehicle and gently pull the sail panels over the 3 bow.

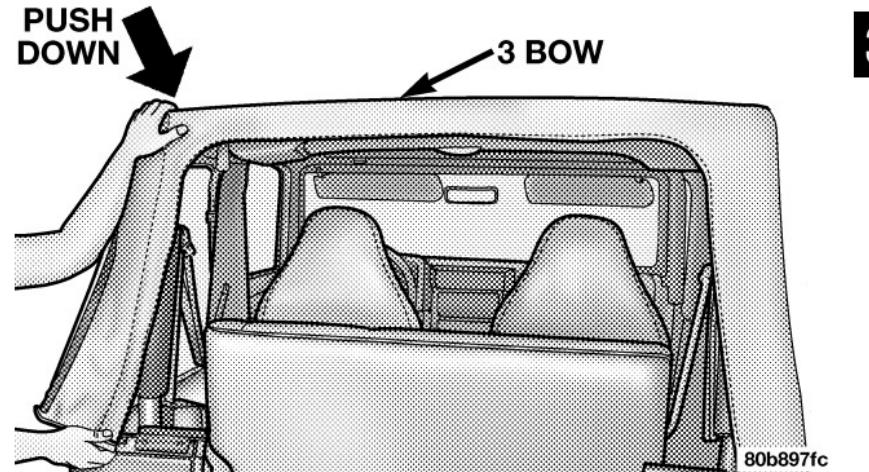


**NOTE:** Check to make certain the check straps are not tangled on any of the other top hardware. This will prevent the top from being put all the way up.

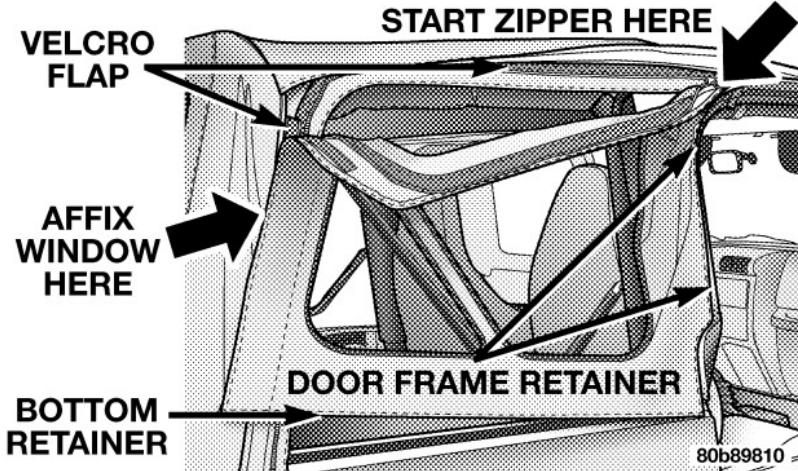
7. Tuck the sail panel retainer into the bodyside retainer. Begin working from the rear tailgate opening and work to the corner.



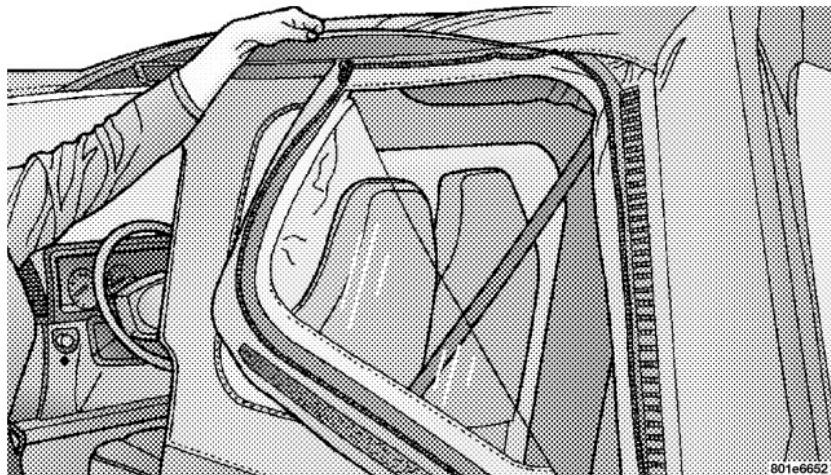
**NOTE:** This may be difficult due to fabric tension. If difficulty is experienced with fabric tension, place your hand on top of the 3 bow and pull down to help tuck in the sail panels.



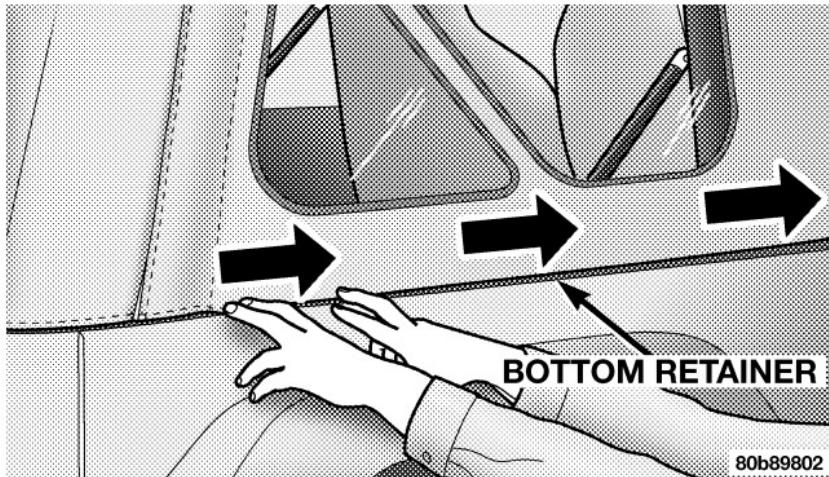
8. To install the quarter windows, affix the upper rear corner of the window temporarily using the Velcro®. Next, start the zipper about 1 inch (2.5 cm) at the upper forward corner of the window. At this time it is necessary to tuck in the door frame retainer.



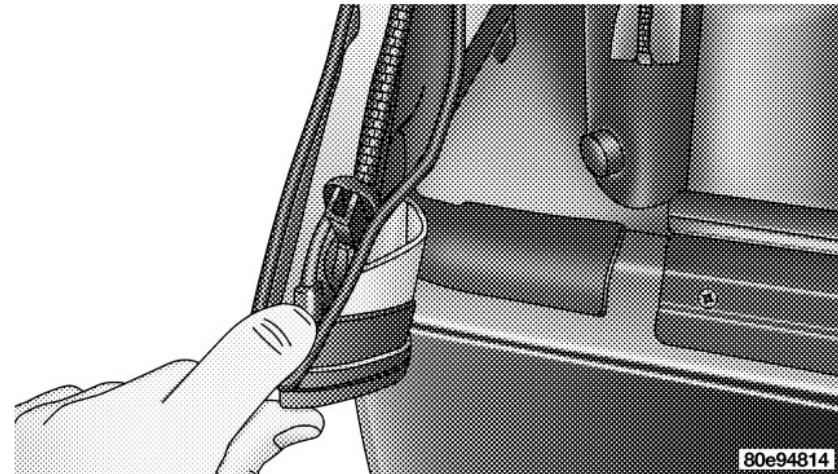
9. After the door frame retainer has been completely tucked in, finish zipping in the window. Then affix the Velcro® flaps around the window.



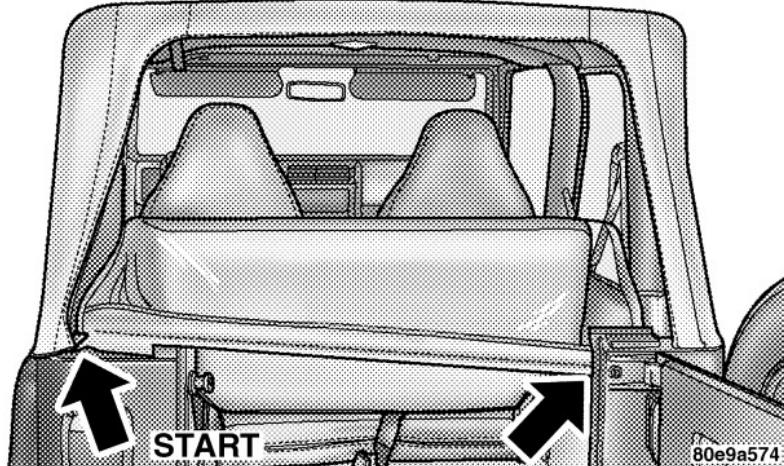
10. Tuck the bottom retainer on the quarter window into the bottom retainer, beginning from the rear and working to the front of the vehicle. Repeat this step for the other side.



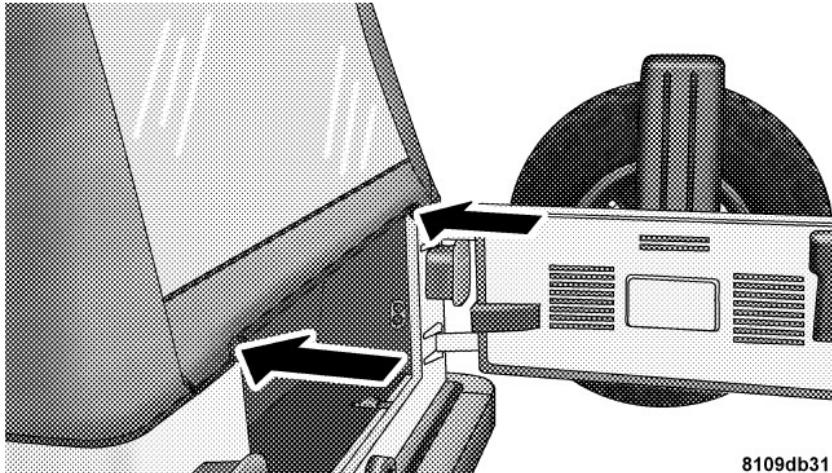
11. Zip in the rear window beginning from the left using both zipper ends. Run the upper zipper around the window leaving the lower zipper in at the start.



**NOTE:** To assist in getting the zipper started, lay the bar inside the vehicle on the right wheel well, un/install half of the left sail panel from the bodyside retainer, beginning near the tailgate open to expose zipper ends.

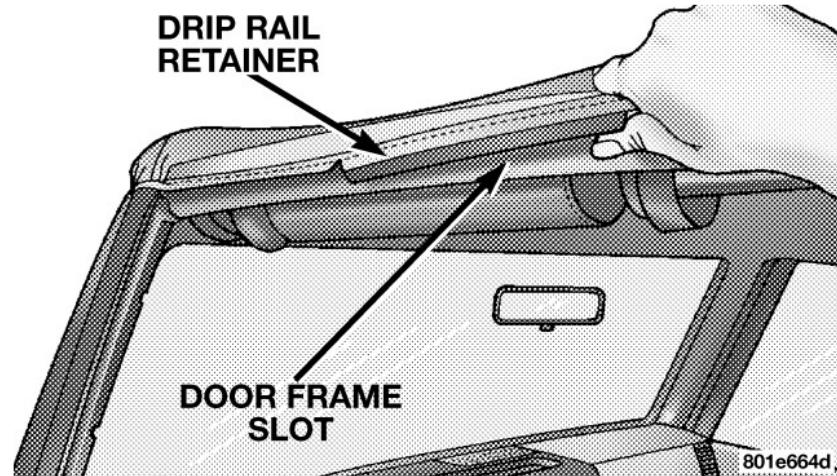
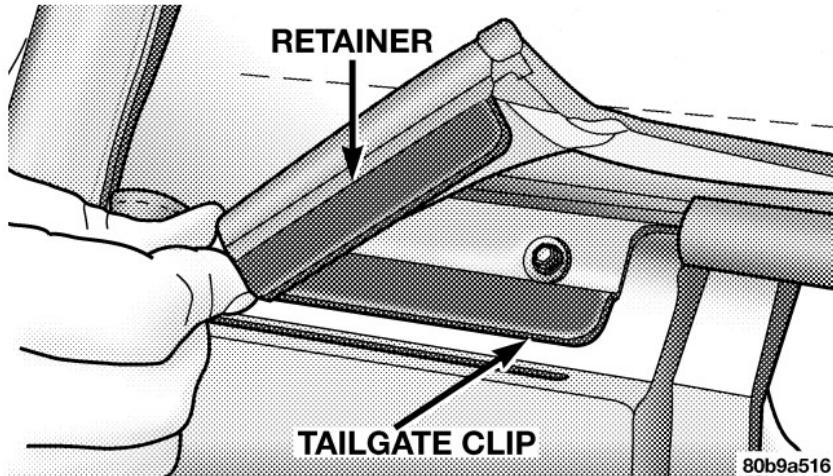


12. Tuck the retainer bar into the upper portion of the tailgate clips.



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13. Tuck the lower retainers on the rear window under the tailgate clips.



14. Reinstall the corner of the sail panel that was untucked to get the rear window zipper started.
15. Tuck the drip rail retainers into the door frame slots above the door on both sides. Start at the front next to the windshield and work rearward.

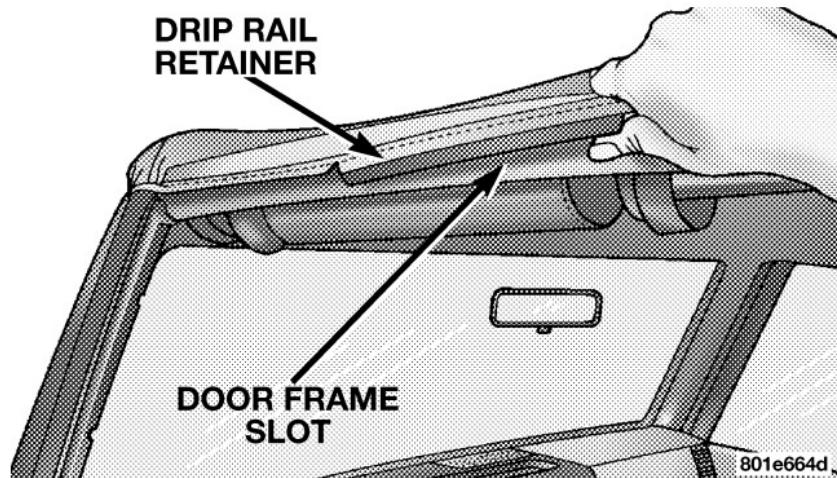
16. Return the sun visors to their secure position.

### SUNRIDER — IF EQUIPPED

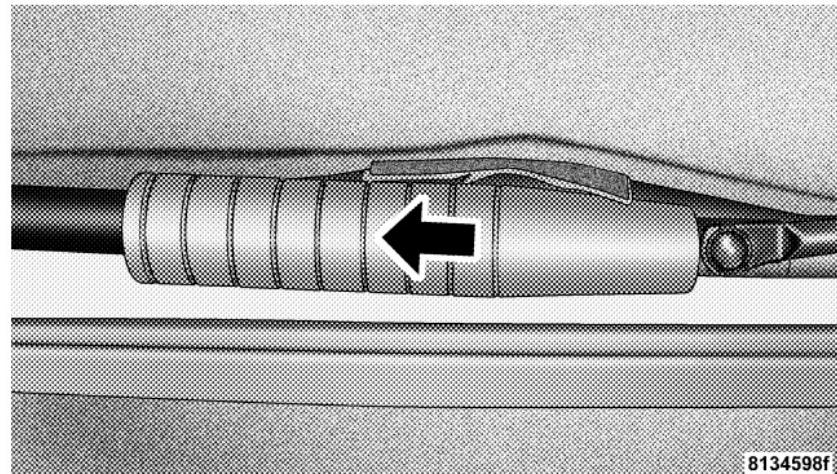
**NOTE:** If you are going to be driving faster than 40 mph (64 km/h) with the Sunrider feature open, it is recommended that you remove the rear window of the vehicle.

*To Raise*

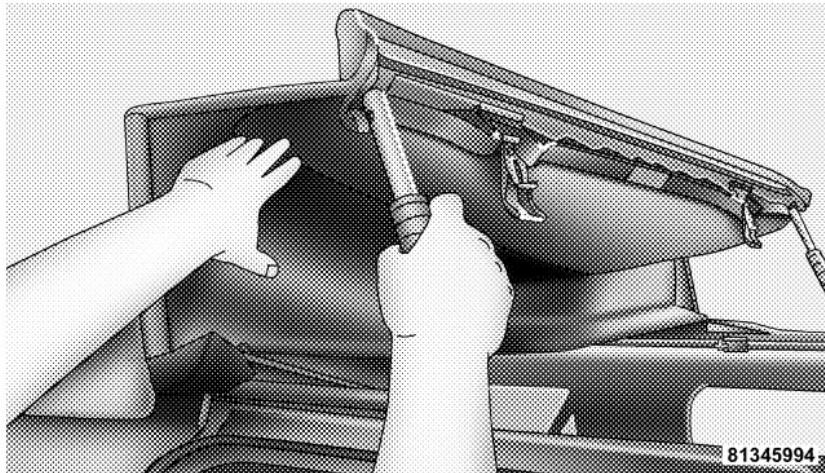
1. Grasp the drip rail retainers and untuck both of them starting at the rear of the door frame slot. Repeat this on the other side.



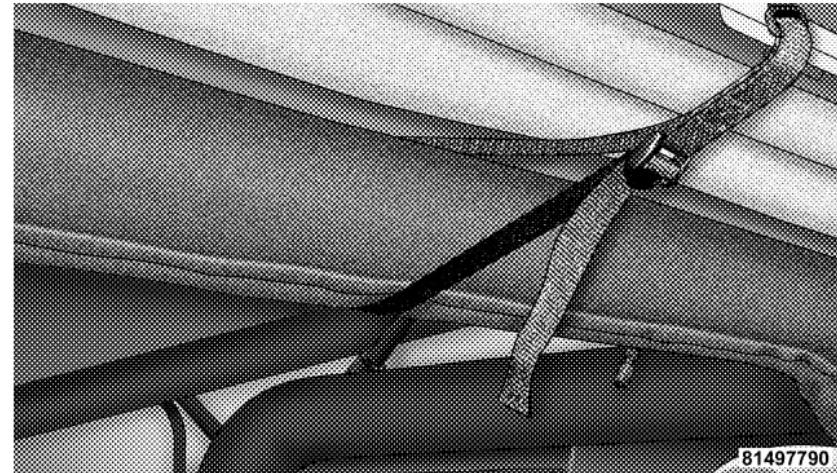
2. Unclip and move the sun visors to the side.
3. Release the header latches, and slide the plastic sleeves forward.



4. Grasp the header and lift the top back. Make sure the material is folded back as shown. Secure latches to plastic retainer on header.



5. Locate strap to secure the header to the sport bar. Wrap strap around sport bar and hook to header and tighten.



6. Attach and reposition sun visors.

**To Lower**

1. Remove strap from header and sport bar.
2. Release header latches from header retainer.
3. Unclip and move the sun visors to the side.
4. Grasp the front header and pull to the front of the vehicle.
5. Slide plastic sleeve rearward over Sunrider link.
6. Tuck drip rail retainers into the door frame slots.
7. Close the header latches, and return sun visors to their original position.

**NOTE:** Sunrider is a trademark of Bestop, Inc.

**DOOR FRAME****WARNING!**

**Do not drive your vehicle on-pavement with the door frame removed or the windshield down as you lose the protection these structural elements can provide. These two procedures are furnished for use during off-road operation only.**

**Door Frame Removal**

1. Unscrew and remove the door frame attachment knobs. Place one hand in the upper rear and one hand on the upper front of the door frame. Pull the frame towards you with your rearward hand to remove the frame from the vehicle.

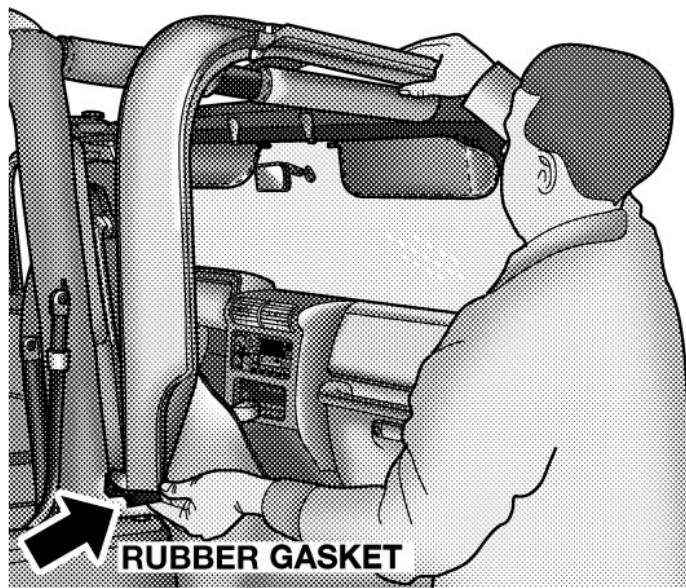
2. Fold the door frames and store the knobs and door frames outside of the vehicle. Repeat this step for the other side.

### WARNING!

- Use both hands to remove the door frames. The door frames will fold and could cause injury if both hands are not used.
- Never store the door frames in your vehicle. In an event of an accident, a loose door frame may cause personal injury. If removed, always store the door frames outside of the vehicle.

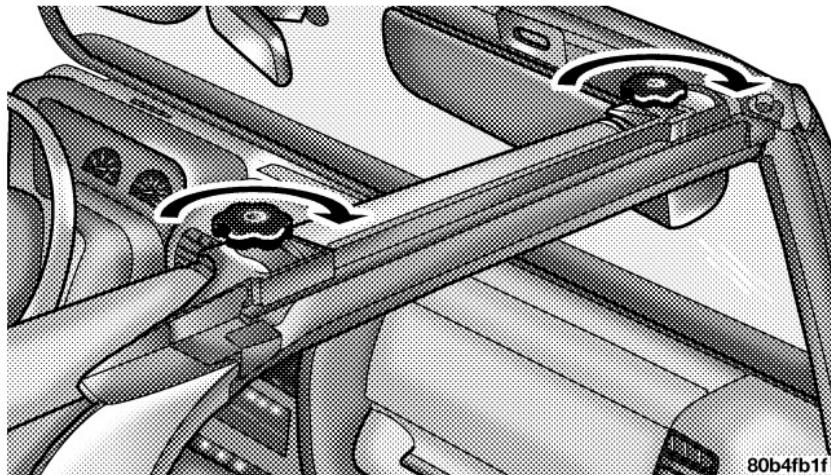
### Door Frame Installation

1. Set the door frame pin into the hole on top of the body side, just behind the door opening.
2. Insert the top front of the door frame into the opening at the top corner of the door opening. Push the top rear of the door frame to the side bar.



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3. Slide door frame forward until the pin holes in the top line up with the holes in the side bar. Screw in the knobs and tighten, beginning with the front knob. Repeat procedures on the other side.



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### FOLDING WINDSHIELD

The fold down windshield and removable side bars on your vehicle are structural elements that can provide some protection in some accidents. The windshield also provides some protection against weather, road debris and intrusion of small branches and other objects.

Do not drive your vehicle on-road with the windshield down and the side bars removed as you lose the protection these structural elements can provide.

**NOTE:** Before lowering windshield, disconnect the electrical connector for the inside Compass/Temperature mirror (if equipped).

**NOTE:** The windshield wiper arm and blade assemblies must be removed prior to lowering the windshield, this can be done by sliding out the attachment clip and gently rocking the arm until it loosens, the wiper arms must be returned to their "Park" positions when the windshield is returned to its upright position.

If required for certain off-road uses, the side bars can be removed and the windshield folded down. However, the protection afforded by these features is then lost. If you remove the side bars and fold down the windshield, drive slowly and cautiously. It is recommended that the

speed of the vehicle be limited to 10 mph (16 km/h), with low range operation preferred, if you are driving off-road with the windshield folded down.

Raise the windshield and reinstall the side bars as soon as the task that required their removal is completed and before you return to on-road driving. Both you and your passenger should wear seat belts at all times, on-road and off-road, regardless of whether the windshield is raised or folded down.

Outside rear view mirrors are mounted on the doors. If you choose to remove the doors, see your authorized dealer for a replacement cowl-mounted outside mirror. Federal law requires outside mirrors on vehicles for on-road use.

**NOTE:** If the doors are removed, the courtesy lights will remain on. To turn these lights off, remove fuse #4 in the fuse panel. Refer to "Fuse Panel" in Section 7 of this manual. (See page 305 for more information.)

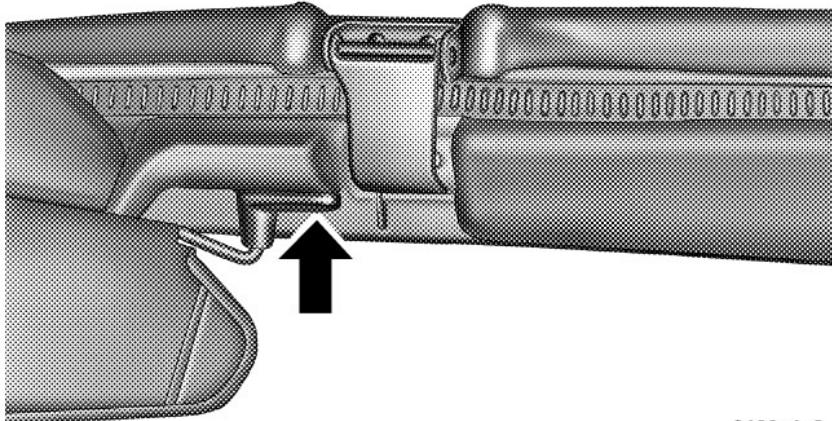
**WARNING!**

Carefully follow these warnings to help protect against personal injury:

- Do not drive your vehicle on-road with the windshield down.
- Do not drive your vehicle unless the windshield is securely fastened, either up or down.
- Eye protection, such as goggles, should be worn at all times when the windshield is down.
- Be sure that you carefully follow the instructions for raising the windshield. Make sure that the folding windshield, windshield wipers, side bars, and all associated hardware and fasteners are correctly and tightly assembled before driving your vehicle. Failure to follow these instructions may prevent your vehicle from providing you and your passengers protection in some accidents.
- If you remove the doors, store them outside the vehicle. In the event of an accident, a loose door may cause personal injury.

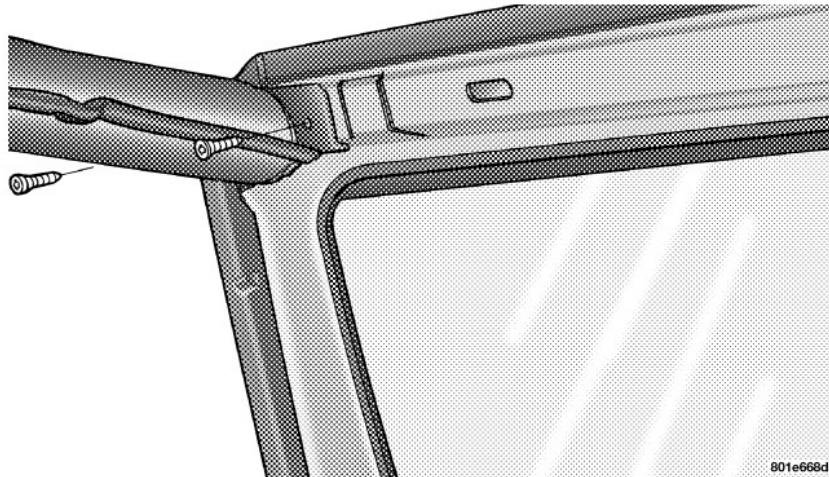
**Lowering the Windshield and Removing Side Bars**

1. Lower the fabric top or remove the hard top following the instructions in this manual.
2. Remove the sun visors, if desired. Store the sun visors.



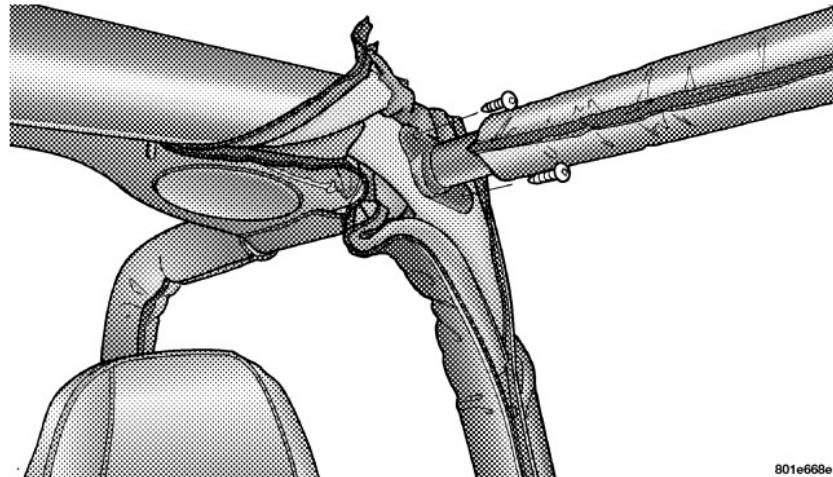
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3. Remove the two Torx® head screws holding each side bar to the windshield frame. Shift the side bar inboard to clear windshield pillar molding when removing the side bar.



**NOTE:** Store all of the mounting bolts in their original threaded holes and tighten for safekeeping.

4. Unzip the sport bar padding to expose the side bar bolts. Remove the two front and rear Torx® head screws for each bar. Remove the side bars and rezip sport bar padding in place.



**Do not loosen or remove the adjusting bolts on the side of the side bars. These bolts are set at the factory to properly fit the side bar to the vehicle.**

### CAUTION!

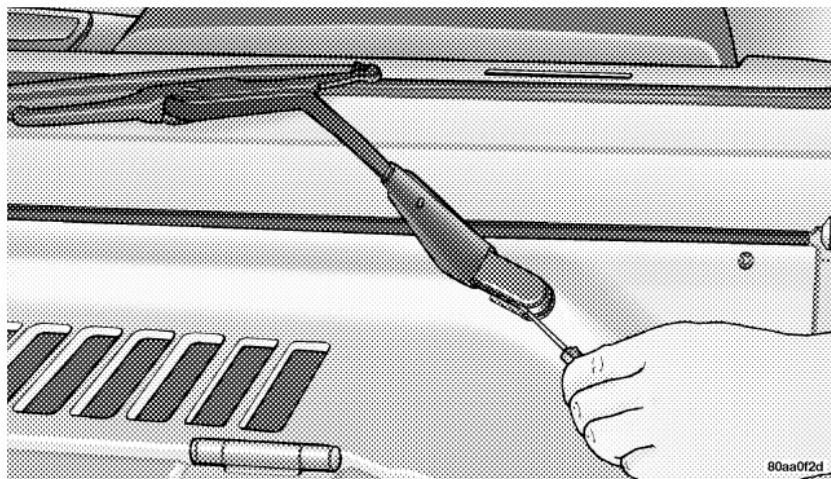
**Do not remove the head impact foam from the side bars, as damage to the foam may result.**

5. To safely store the side bars in your vehicle, use four of the cinch straps, found in the glove box. Attach the straps through the footman loops located in the floor behind the folded rear seat on each side of the vehicle.

### WARNING!

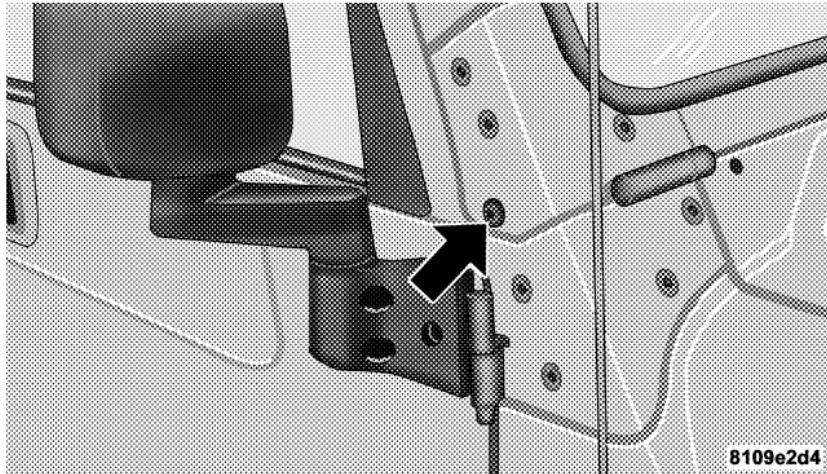
**You or others could be injured if you carry the side bars loose in your vehicle. Remove the bars from the vehicle or securely store them as described or they may cause personal injury if an accident occurs. See your authorized dealer for replacement if the cinch straps are not found in the glove box.**

6. Remove the windshield wiper arms by first pulling the wiper away from the windshield and out to the "lock" position. Then, using a small flat tool such as a screw driver, release the retaining clip from the top of the wiper arm. Lift the wiper arms off and store in center console or securely behind the rear seat.

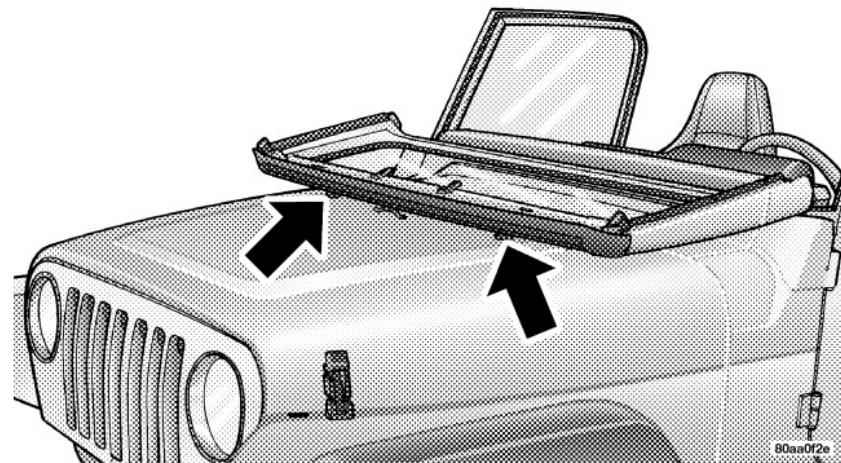


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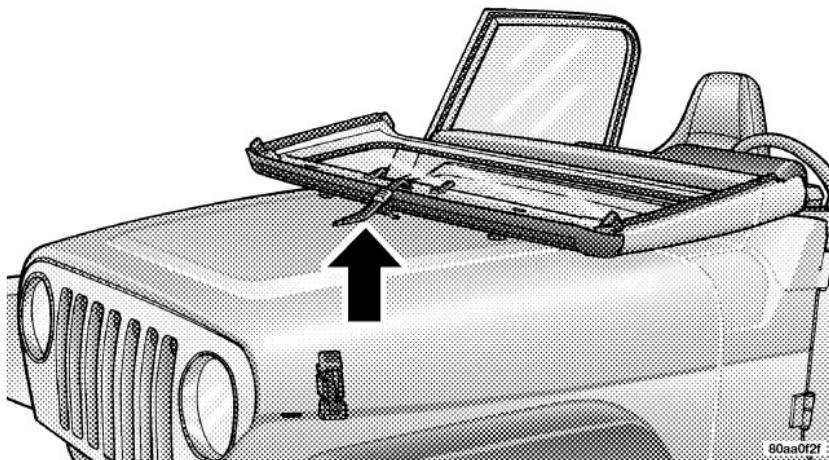
7. Remove the black round headed windshield Torx® head screw on each side of the base of the windshield.



8. Lower the windshield gently until it contacts the rubber hood bumpers.



9. Secure the windshield by passing the remaining cinch strap, found in the glove box, through the footman hoop on the center of the hood and on the center of the windshield frame. Tighten the strap to secure the windshield in place.



## Raising The Windshield And Replacing Side Bars

To raise the windshield, install the windshield wipers, and install the side bars use these same steps in reverse.

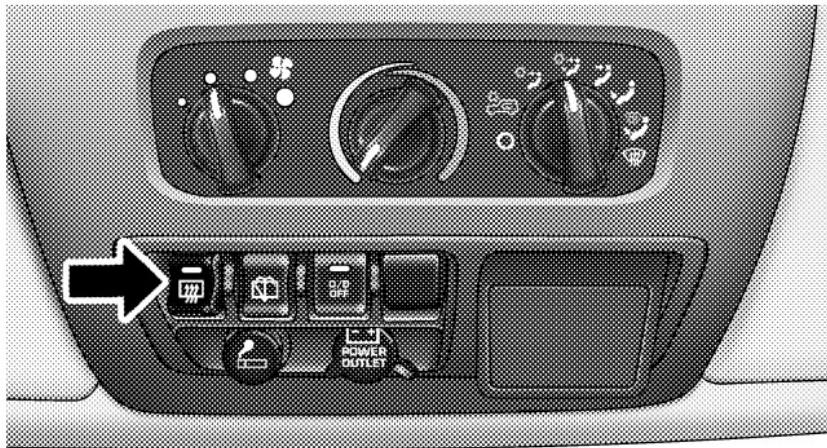
### WARNING!

To help protect against personal injury, always install the side bars when raising the windshield on your vehicle. If you do not raise the windshield and install the side bars, you lose the protection these structural elements provide in some accidents.

## REAR WINDOW FEATURES — HARD TOP ONLY

### Rear Window Defogger

To turn the rear window defogger on, press the rocker switch. If you press the switch a second time, you will turn the defogger off. A light on the rocker switch will indicate the defogger is on.



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Rear Defroster Switch

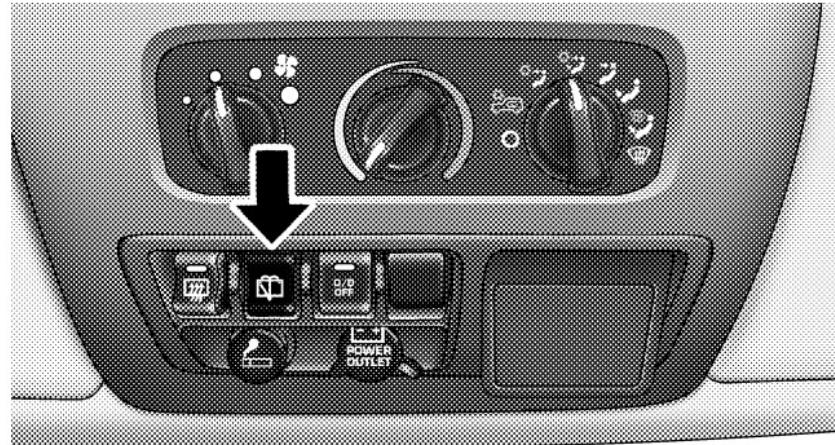
The defogger will automatically turn off after about ten minutes. For five more minutes of operation, depress the top of the switch to turn the defogger on again. To prevent excessive battery drain use the defogger only when the engine is operating.

### CAUTION!

Use care when washing the inside of the rear window to prevent damage to heating elements. Use a soft cloth and a mild washing solution, wiping parallel to the heating elements. Also, keep all objects a safe distance from the window to prevent damaging the heating elements.

## Rear Window Wiper/Washer

To utilize the rear wiper, press the switch to the first detent. To activate the rear washer, depress the switch to the second detent. The washer will continue to spray as long as the switch is held. The switch will return to the wiper mode when released. To turn the rear wiper off, lift the bottom of the switch.



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**Rear Wiper/Washer Switch**

## Adding Washer Fluid

The fluid reservoir for the windshield washers and the rear window washer is shared. It is located in the front of the engine compartment on the passenger side and should be checked for fluid level at regular intervals. Fill the reservoir with windshield washer solvent (not radiator antifreeze) and operate the system for a few seconds to flush out the residual water.



Information Provided by:  
**DEALER**  
e-PROCESS

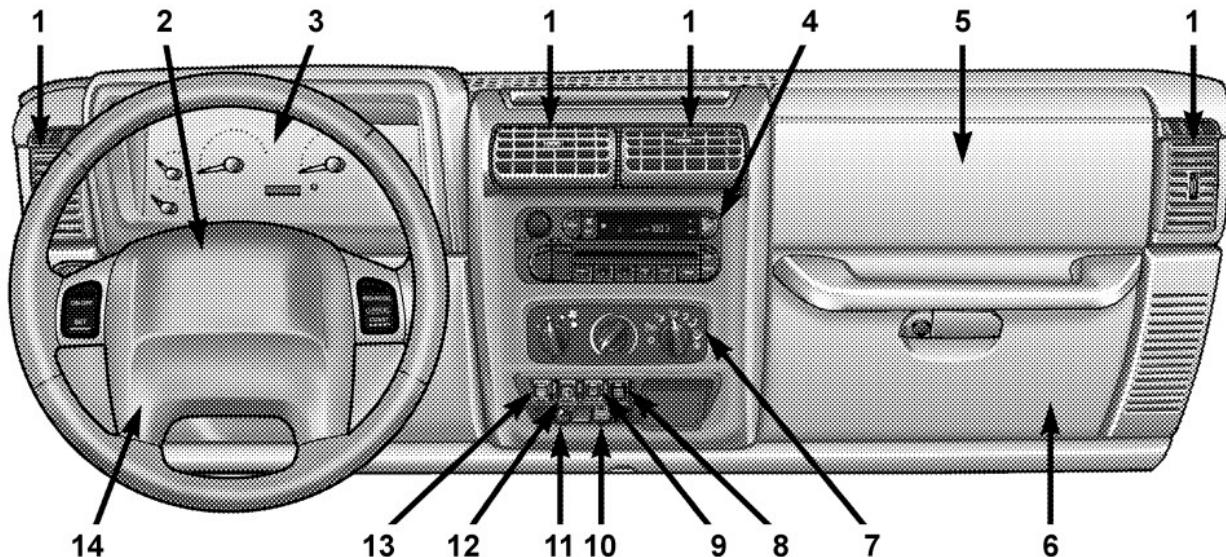
# UNDERSTANDING YOUR INSTRUMENT PANEL

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**INSTRUMENT PANEL AND INTERIOR CONTROLS**

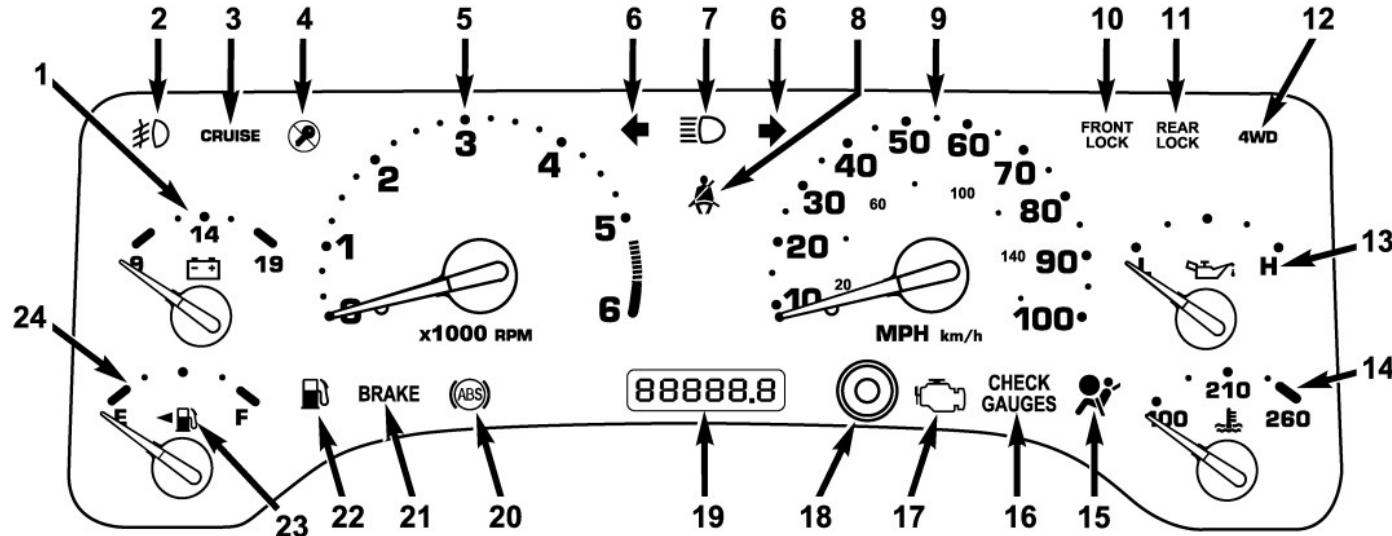
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- 7. Climate Controls
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- 10. Auxiliary Power Outlet

- 11. Cigar Lighter\*
  - 12. Rear Wiper Switch\*
  - 13. Rear Defroster Switch\*
  - 14. Horn
- \*If Equipped

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## INSTRUMENT CLUSTER



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## INSTRUMENT CLUSTER DESCRIPTION

Your vehicle is equipped with the instrument cluster described on the following pages.

### 1. Voltmeter

 Indicates available battery voltage and charging system operation. The lower red zone indicates that battery charge may be too low to start the engine. With the engine running, the normal operating range is between 11 and 15 volts. Prolonged gauge readings between 8-11 (undercharge) or above 15 (overcharge) indicate possible malfunction of generator, voltage regulator or battery. See your dealer if such indications occur.

### 2. Front Fog Light Indicator Light — If Equipped

 This light shows when the front fog lights are on.

### 3. Cruise Indicator Light

**CRUISE** This light shows when the electronic speed control system is turned on.

### 4. Sentry Key Indicator Light — If Equipped

 Refer to "Sentry Key Immobilizer System" in Section 2 of this manual. (See page 14 for more information.)

### 5. Tachometer

Indicates the engine speed in revolutions per minute (RPM).

## CAUTION!

Do not operate the engine with the tachometer pointer in the red area. Engine damage will occur.

### 6. Turn Signal Indicator Lights

 The arrows will flash with the exterior turn signals when the turn signal lever is operated. A tone will chime if the turn signals are left on for more than 1 mile (2 km).

### 7. High Beam Indicator Light

 This light shows that the headlights are on high beam. Pull the turn signal lever towards the steering wheel to switch the headlights from high or low. If the driver's door is open, and the headlights or parklights are left on, the "High Beam Indicator Light" will flash and a chime will sound.

### 8. Seat Belt Indicator Light

 A warning chime and an indicator light will alert you to buckle the seat belts. When the belt is buckled, the chime will stop, but the light will stay on until it times out (about 6 seconds).

### 9. Speedometer

Indicates vehicle speed.

### 10. Front Axle Lock Indicator Light — If Equipped

 Indicates when the front axle lock has been activated. (See page 199 for more information.)

### 11. Rear Axle Lock Indicator Light — If Equipped

 Indicates when the rear axle lock has been activated. (See page 199 for more information.)

### 12. 4WD Indicator Light

 This light alerts the driver that the vehicle is in the four-wheel drive mode, and the front and rear driveshafts are mechanically locked together forcing the front and rear wheels to rotate at the same speed. (See page 194 for more information.)

### 13. Oil Pressure Gauge

 Indicates engine oil pressure. This gauge does not indicate oil level, and pressure varies with engine speed, temperature and oil viscosity. Consistent lower readings indicate possible malfunction. Seek authorized service.

### 14. Coolant Temperature Gauge

 Indicates engine coolant temperature. The red zone to the far right indicates possible overheating. Seek authorized service immediately if the gauge operates in the red zone. In U.S. vehicles, temperature is indicated in degrees fahrenheit; in Canadian vehicles in degrees centigrade.

### 15. Airbag Warning Light

 This indicator lights and remains lit for 6 to 8 seconds when the ignition is first turned on. If the light does not come on for 6 to 8 seconds,

stays on or comes on while driving, have the airbag system checked by an authorized dealer.

### 16. Check Gauges Warning Light

**CHECK GAUGES** This light monitors the engine coolant temperature, engine oil pressure, and voltage gauges. If it detects an extreme condition a chime will sound and the light will come on. If the light comes on, check the operation of these gauges for a malfunction condition.

### 17. Malfunction Indicator Light

 This light is a part of an Onboard Diagnostic System called OBD II that monitors engine, and automatic transmission control systems. The light will illuminate when the ignition is in the ON position before engine start. If the bulb does not come on when turning the key from OFF to ON, have the condition checked promptly.

Certain conditions such as a loose or missing gas cap, poor quality fuel, etc. may illuminate the light after engine start. The vehicle should be serviced if the light stays on through several typical driving styles. In most situations, the vehicle will drive normally and will not require towing.

When the engine is running, the "Malfunction Indicator Light" may flash to alert serious conditions that could lead to immediate loss of power or severe catalytic converter damage. The vehicle should be serviced as soon as possible if this occurs. (See page 268 for more information.)

#### ***18. Trip Odometer Button***

Press and release this button to toggle between the odometer and trip odometer displays. This button is also used to reset the trip odometer to 0. While the display is showing the trip odometer, press and hold the button for approximately 2 seconds and the display will reset to 0.

#### ***19. Odometer/Trip Odometer***

The odometer shows the total distance the vehicle has been driven.

The odometer will "illuminate" when the driver's door has been opened, and will remain on for 20 seconds after exiting the vehicle.

U.S. federal regulations require that upon transfer of vehicle ownership, the seller certify to the purchaser the correct mileage that the vehicle has been driven. Therefore, if the odometer reading is changed during repair or replacement, be sure to keep a record of the reading before and after the service so the correct mileage can be determined.

The trip odometer shows individual mileage up to 999.9 miles (1 600 km). To switch from odometer to trip odometer, press the trip odometer button.

## 20. Anti-Lock (ABS) Warning Light

 After ignition is turned on, illuminates to indicate function check at vehicle start-up. If light remains on after start-up or comes on and stays on at road speeds, it may indicate that the ABS has detected a malfunction or has become inoperative. The system reverts to standard non-anti-lock brakes.

If both the red BRAKE warning light and the amber ABS warning light are on, see your dealer immediately. Refer to "Anti-Lock Brake System" in Section 5 of this manual.

## 21. Brake Warning Light

 After ignition is turned on, illuminates to indicate function check at vehicle start-up. Indicates parking brake is applied. If the light stays on when the parking brake is off, it indicates a possible brake system fluid leak or low pressure level, **see your authorized dealer immediately**.

If the parking brake is applied and the vehicle is in motion, the red BRAKE warning light will "flash" and a chime will sound.

The operation of the BRAKE warning light can be checked by turning the ignition switch from the OFF position to the ON position. The light should illuminate for approximately two seconds. The light should then turn off unless the parking brake is applied or a brake fault is detected. If the light does not illuminate, have the light inspected by an authorized dealer.

## 22. Low Fuel Warning Light

 When the fuel level reaches approximately 2 U.S. Gallons (7.6L) this light will come on and remain on until fuel is added. The "Low Fuel Warning Light" may turn on and off again, especially during and after hard braking, accelerations, or turns. This occurs due to the shifting of the fuel in the tank.

### 23. Fuel Cap Indicator



This symbol indicates the side of the vehicle where the fuel cap is located.

### 24. Fuel Gauge

The pointer shows the level of fuel in the fuel tank. When the fuel gauge pointer initially moves to E, for your safety, approximately 2 U.S. Gallons (7.6L) of fuel remain.

**NOTE:** When the ignition switch is turned to OFF, the fuel gauge, voltmeter, oil pressure and temperature gauges may not show accurate readings. When the engine is not running, turn the ignition switch to ON to obtain accurate readings.

## ELECTRONIC DIGITAL CLOCK

The clock and radio each use the display panel built into the radio. A digital readout shows the time in hours and minutes whenever the ignition switch is in the ON or ACC position and the time button is pressed.

When the ignition switch is in the OFF position, or when the radio frequency is being displayed, time keeping is accurately maintained.

### Clock Setting Procedure

1. Turn the ignition switch to the ON or ACC position and press the time button. Using the tip of a ballpoint pen or similar object, press either the hour (H) or minute (M) buttons on the radio.
2. Press the H button to set hours or the M button to set minutes. The time setting will increase each time you press a button.

## RADIO GENERAL INFORMATION

### Radio Broadcast Signals

Your new radio will provide excellent reception under most operating conditions. Like any system, however, car radios have performance limitations, due to mobile operation and natural phenomena, which might lead you to believe your sound system is malfunctioning. To help you understand and save you concern about these "apparent" malfunctions, you must understand a point or two about the transmission and reception of radio signals.

### Two Types of Signals

There are two basic types of radio signals... AM or Amplitude Modulation, in which the transmitted sound causes the amplitude, or height, of the radio waves to vary... and FM or Frequency Modulation, in which the frequency of the wave is varied to carry the sound.

### Electrical Disturbances

Radio waves may pick up electrical disturbances during transmission. They mainly affect the wave amplitude, and thus remain a part of the AM reception. They interfere very little with the frequency variations that carry the FM signal.

### AM Reception

AM sound is based on wave amplitude, so AM reception can be disrupted by such things as lightning, power lines and neon signs.

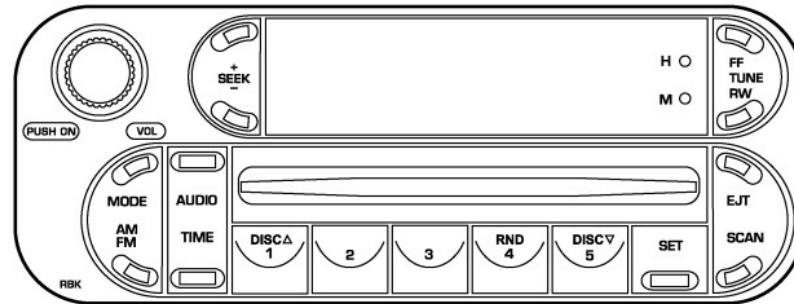
### FM Reception

Because FM transmission is based on frequency variations, interference that consists of amplitude variations can be filtered out, leaving the reception relatively clear, which is the major feature of FM radio.

**NOTE:** On vehicles so equipped the radio, steering wheel radio controls and 6 disc CD/DVD changer will remain active for up to 45 seconds after the ignition switch has been turned off. Opening a vehicle front door will cancel this feature.

### SALES CODE RBK—AM/ FM STEREO RADIO WITH CD PLAYER AND CD CHANGER CONTROLS

**NOTE:** The radio sales code is located on the lower left side of your radio faceplate.



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### RBK Radio Radio Operation

#### Power/Volume Control

Press the ON/VOL control to turn the radio on. Turn the volume control clockwise to increase the volume.

**NOTE:** Power to operate the radio is supplied through the ignition switch. It must be in the ON or ACC position to operate the radio.

### Seek

Press and release the SEEK button to search for the next station in either the AM or FM mode. Press the top of the button to seek up or the bottom to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button in will bypass stations without stopping until you release it.

### Tune

Press the TUNE control up or down to increase or decrease the frequency. If you press and hold the button, the radio will continue to tune until you release the button. The frequency will be displayed and continuously updated while the button is pressed.

### To Set The Radio Push-Button Memory

When you are receiving a station that you wish to commit to push-button memory, press the SET button. SET 1 will show in the display window. Select the “1–5” button you wish to lock onto this station and press and release that button. If a button is not selected within 5 seconds after pressing the SET button, the station will continue to play but will not be locked into push-button memory.

You may add a second station to each push-button by repeating the above procedure with this exception: Press the SET button twice and SET 2 will show in the display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 10 AM and 10 FM stations to be locked into push-button memory. The stations stored in SET 2 memory can be selected by pressing the push-button twice. Every time a preset button is used a corresponding button number will be displayed.

## Audio

The audio button controls the BASS, TREBLE, BALANCE, and FADE.

Press the AUDIO button and BASS will be displayed. Press the SEEK + or SEEK – to increase or decrease the Bass tones.

Press the AUDIO button a second time and TREB will be displayed. Press the SEEK + or SEEK – to increase or decrease the Treble tones.

Press the AUDIO button a third time and BAL will be displayed. Press the SEEK + or SEEK – to adjust the sound level from the right or left side speakers.

Press the AUDIO button a fourth time and FADE will be displayed. Press the SEEK + or SEEK – to adjust the sound level between the front and rear speakers.

Press the AUDIO button again or wait 5 seconds to exit setting tone, balance, and fade.

## AM/FM Selection

Press the AM/FM button to change from AM to FM. The operating mode will be displayed next to the station frequency. The display will show ST when a stereo station is received.

## Time

Press the TIME button to change the display between radio frequency and time.

## General Information

This radio complies with Part 15 of FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following conditions:

1. This device may not cause harmful interference,
2. This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CD Player Operation

**NOTE:** The ignition switch must be in the ON or ACC position and the volume control ON before the CD player will operate.

### Inserting The Compact Disc

#### CAUTION!

This CD player will accept 4 ¾ inch (12 cm) discs only. The use of other sized discs may damage the CD player mechanism.

You may either insert or eject a disc with the radio OFF.

If you insert a disc with the ignition ON and the radio OFF, the display will show the time of day.

If the power is ON, the unit will switch from radio to CD mode and begin to play when you insert the disc. The display will show the track number and index time in minutes and seconds. Play will begin at the start of track one.

4

#### Seek

Press the top of the SEEK button for the next selection on the CD. Press the bottom of the button to return to the beginning of the current selection, or return to the beginning of the previous selection if the CD is within the first second of the current selection.

#### EJT — Eject

Press the EJT button and the disc will unload and move to the entrance for easy removal. The unit will switch to the radio mode.

If you do not remove the disc within 15 seconds, it will be reloaded. The unit will continue in radio mode.

The disc can be ejected with the radio and ignition OFF (except on convertibles).

#### FF/TUNE/RW

Press FF (Fast Forward) and the CD player will begin to fast forward until FF is released. The RW ( Reverse) button works in a similar manner.

#### Random Play — RND/Program Button 4

Press the RND (button 4) button while the CD is playing to activate Random Play. This feature plays the tracks on the selected disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press the RND (button 4) button a second time to stop Random Play.

#### Mode

Press the MODE button repeatedly to select between the CD player, the optional remote CD changer and the Satellite Radio (if equipped). When Satellite Radio (if equipped) is selected "SAT" will appear in your radio display.

A CD or tape may remain in the player while in the Satellite mode.

#### Time

Press the TIME button to change the display from elapsed CD playing time to time of day.

#### CD Changer Control Capability — If Equipped

This radio is compatible with a remote mounted CD changer available through Mopar Accessories. The following instructions are for the radio controls that operate this CD changer.

### Mode Button

To activate the CD changer, press the MODE button until CD information appears on the display.

### Disc Up/Program Button 1

Press the DISC up (button 1) button to play the next available disc.

### Disc Down/Program Button 5

Press the DISC down (button 5) button to play the previous disc.

### Seek Button

Press the SEEK up or down to select another track on the same disc. A SEEK symbol will appear on the display.

### Fast Forward And Rewind Buttons

Press and hold the FF button for fast forward. Press and hold the RW button for fast reverse.

The audio output can be heard when fast forward and fast reverse are activated.

### Random Play (RND)

Press the Random button to play the tracks on the selected disc in random order for an interesting change of pace.

Random can be cancelled by pressing the button a second time or by ejecting the CD from the changer.

### Operating Instructions - Satellite Radio Mode (If Equipped)

Refer to the Satellite Radio section of the Owner's Manual.

### CD Diagnostic Indicators

When driving over a very rough road, the CD player may skip momentarily. Skipping will not damage the disc or the player, and play will resume automatically.

As a safeguard and to protect your CD player, one of the following warning symbols may appear on your display.

A CD HOT symbol indicates the player is too hot.

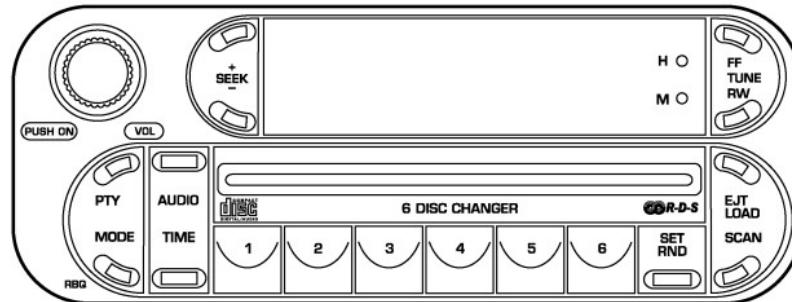
CD HOT will pause the operation. Play can be resumed when the operating temperature is corrected or another MODE is selected.

An ERR symbol will appear on the display if the laser is unable to read the Disc data for the following reasons:

- Excessive vibration
- Disc inserted upside down
- Damaged disc
- Water condensation on optics

## SALES CODE RBQ—AM/FM STEREO RADIO WITH 6 - DISC CD CHANGER

**NOTE:** The radio sales code is located on the lower left side of your radio faceplate.



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## RBQ Radio Radio Operation

### Power/Volume Control

Press the PWR/VOL control to turn the radio on. Turn the volume control clockwise to increase the volume.

**NOTE:** Power to operate the radio is controlled by the ignition switch. It must be in the ON or ACC position to operate the radio.

### Mode

Press the MODE button repeatedly to select between AM, FM, the CD changer and Sirius Satellite Radio™ (if equipped). The display will show ST when a stereo station is received.

To select Sirius Satellite Radio™ (if equipped), press the MODE button until the word SIRIUS appears. The following will be displayed in this order: After three seconds, the current channel name and number will be displayed for five seconds. The current program type and channel number will then be displayed for five seconds. The current channel name and number will then be displayed until an action occurs. CD's may remain in the player while in the Satellite Radio mode.

### Seek

Press and release the SEEK button to search for the next station in either the AM or FM mode. Press the top of the button to seek up and the bottom to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button in will bypass stations without stopping until you release it.

### Tune

Press the TUNE control up or down to increase or decrease the frequency. If the button is pressed and held, the radio will continue to tune until the button is released. The frequency will be displayed and continuously updated while the button is pressed.

### To Set The Radio Push-Button Memory

When you are receiving a station that you wish to commit to push-button memory, press the SET RND button. SET 1 will show in the display window. Select the "1–6" button you wish to lock onto this station and press

and release that button. If a button is not selected within 5 seconds after pressing the SET RND button, the station will continue to play but will not be locked into push-button memory.

You may add a second station to each push-button by repeating the above procedure with this exception: Press the SET button twice and SET 2 will show in the display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 12 AM and 12 FM stations to be locked into push-button memory. The stations stored in SET 2 memory can be selected by pressing the corresponding push-button twice. Every time a preset button is used, a corresponding button number will be displayed.

## **Audio**

The audio button controls the BASS, TREBLE, BALANCE, and FADE.

Press the AUDIO button and BASS will be displayed. Press the SEEK + or SEEK - to increase or decrease the Bass tones.

Press the AUDIO button a second time and TREB will be displayed. Press the SEEK + or SEEK - to increase or decrease the Treble tones.

Press the AUDIO button a third time and BAL will be displayed. Press the SEEK + or SEEK - to adjust the sound level from the right or left side speakers.

Press the AUDIO button a fourth time and FADE will be displayed. Press the SEEK + or SEEK - to adjust the sound level between the front and rear speakers.

Press the AUDIO button again or wait 5 seconds to exit setting tone, balance, and fade.

## **Time Button**

Press the TIME button to change the display between radio frequency and time.

## General Information

This radio complies with Part 15 of FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following conditions:

1. This device may not cause harmful interference,
2. This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CD Player Operation

**NOTE:** The ignition switch must be in the ON or ACC position and the Power / Volume control pushed ON before the CD player will operate.

## Inserting The Compact Disc

### CAUTION!

This CD player will accept 4 3/4 inch (12 cm) discs only. The use of other sized discs may damage the CD player mechanism.

4

You may either insert or eject a disc with the radio OFF.

If you insert a disc with the ignition ON and the radio OFF, the display will show the time of day. If you insert a disc with the ignition OFF, the display will show the time of day for about 5 seconds, then go out.

If you insert a disc with the ignition ON and the radio ON, the unit will switch from radio to CD mode and begin to play when you insert the disc. The display will

show the disc number, the track number, and index time in minutes and seconds. Play will begin at the start of track 1.

### **LOAD/ EJT — Load**

Press the LOAD/ EJT button and the button with the corresponding number where the CD is being loaded. After the radio displays "load" insert the CD into the player.

Radio display will show "loading" when it is being loaded.

### **LOAD / EJT — Eject**

Press the LOAD/ EJT button and the button with the corresponding number where the CD was loaded and the disc will unload and move to the entrance for easy removal.

Radio display will show "ejecting" when it is being ejected.

If you have ejected a disc and have not removed it within 15 seconds, it will be reloaded. If the CD is not removed, the radio will continue to play the non-removed CD. If the CD is removed and there are other CD's in the radio, the radio will play the next CD. If the CD is removed and there are no other CD's in the radio, the radio will return to the last selected AM or FM mode.

The disc can be ejected with the radio and ignition OFF.

### **Seek**

Press the top of the SEEK button for the next selection on the CD. Press the bottom of the button to return to the beginning of the current selection, or return to the beginning of the previous selection if the CD is within the first second of the current selection.

### **Scan**

Press the Scan button to scan through each track on the CD currently playing.

## FF/TUNE/RW

Press FF (Fast Forward) and the CD player will begin to fast forward until FF is released. The RW ( Reverse) button works in a similar manner.

## Random Play — SET / RND

Press the RND button while the CD is playing to activate Random Play. This feature plays the tracks on the disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press the SET / RND button a second time to stop Random Play.

## PTY (Program Type) Button

Pressing this button once will turn on the PTY mode for 5 seconds. If no action is taken during the 5 second time out the PTY icon will turn off. Pressing the PTY button

repeatedly within 5 seconds will allow the program format type to be selected. Many radio stations do not currently broadcast PTY information.

Toggle the PTY button to select the following format types:

| Program Type     | Radio Display |
|------------------|---------------|
| Adult Hits       | Adlt Hit      |
| Classical        | Classicl      |
| Classic Rock     | Cl Rock       |
| College          | College       |
| Country          | Country       |
| Emergency        | ALERT!        |
| Emergency Test   | Test          |
| Information      | Inform        |
| Jazz             | Jazz          |
| Foreign Language | Language      |
| News             | News          |

| Program Type          | Radio Display |
|-----------------------|---------------|
| Nostalgia             | Nostalga      |
| Oldies                | Oldies        |
| Personality           | Persnly       |
| Public                | Public        |
| Rhythm and Blues      | R & B         |
| Religious Music       | Rel Musc      |
| Religious Talk        | Rel Talk      |
| Rock                  | Rock          |
| Soft                  | Soft          |
| Soft Rock             | Soft Rck      |
| Soft Rhythm and Blues | Soft R&B      |
| Sports                | Sports        |
| Talk                  | Talk          |
| Top 40                | Top 40        |
| Weather               | Weather       |

By pressing the SEEK button when the PTY icon is displayed, the radio will be tuned to the next frequency station with the same selected PTY name. The PTY function only operates when in the FM mode.

The radio display will flash "SEEK" and the selected PTY program type when searching for the next PTY station. If no station is found with the selected PTY program type, the radio will return to the last station.

If a preset button is activated while in the PTY (Program Type) mode, the PTY mode will be exited and the radio will tune to the preset station.

By pressing the SCAN button when the PTY icon is displayed, the radio will stop at every PTY station on the band and list each corresponding program type in the radio display.

## Time

Press the TIME button to change the display from elapsed CD playing time to time of day.

## Operating Instructions - Satellite Radio Mode (If Equipped)

Refer to the Satellite Radio section of the Owner's Manual.

## CD Diagnostic Indicators

When driving over a very rough road, the CD player may skip momentarily. Skipping will not damage the disc or the player, and play will resume automatically.

As a safeguard and to protect your CD player, one of the following warning symbols may appear on your display.

A CD HOT symbol indicates the player is too hot.

CD HOT will pause the operation. Play can be resumed when the operating temperature is corrected or another MODE is selected.

CD ERROR will appear on the display if the laser is unable to read the Disc data for the following reasons:

- Warped disc
- Excessive vibration
- Disc inserted upside down
- Damaged disc
- Water condensation on optics

## SATELLITE RADIO — IF EQUIPPED

Satellite radio uses direct satellite to receiver broadcasting technology to provide clear digital sound, coast to coast. The subscription service provider is Sirius™ Satellite Radio. This service offers up to 100 channels of music, sports, news, entertainment, and programming for children, directly from its satellites and broadcasting studios.

## System Activation

To activate your Sirius Satellite Radio service, call the toll-free number 888-539-7474, or visit the Sirius web site at [www.sirius.com](http://www.sirius.com). Please have the following information available when activating your system:

1. The Electronic Serial Number/Sirius Identification Number (ESN/SID).
2. Credit card information.
3. Your Vehicle Identification Number.

## Electronic Serial Number/Sirius Identification Number (ENS/SID)

The Electronic Serial Number/Sirius Identification Number is needed to activate your Sirius Satellite Radio system. To access the ESN/SID, refer to the following steps:

## ESN/SID Access With RBB, RAH and RBK Radios

With the ignition switch in the ACCESSORY position and the radio OFF, press the Tape Eject or CD Eject (depending on the radio type) and Time buttons simultaneously for 3 seconds. The first four digits of the twelve-digit ESN/SID number will be displayed. Press the SEEK UP button to display the next four digits. Continue to press the SEEK UP button until all twelve ESN/SID digits have been displayed. The SEEK DOWN will page down until the first four digits are displayed. The radio will exit the ESN/SID mode when any other button is pushed, the ignition is turned OFF, or 5 minutes has passed since any button was pushed.

## ESN/SID Access With RBP, RBU, RAZ, RB1 and RBQ Radios

With the ignition switch in the ACCESSORY position and the radio OFF, press the CD Eject and TIME buttons simultaneously for 3 seconds. All twelve ESN/SID numbers will be displayed. The radio will exit the ESN/SID

mode when any other button is pushed, the ignition is turned OFF, or 5 minutes has passed since any button was pushed.

## Selecting Satellite Mode in RBB, RAH and RBK Radios

Press the MODE button repeatedly until "S A" appears in the display. A CD or tape may remain in the radio while in the Satellite radio mode.

## Selecting Satellite Mode in RBP, RBU, RAZ, RB1 and RBQ Radios

Press the MODE button repeatedly until the word "SIRIUS" appears in the display. These radios will also display the following:

- After 3 seconds, the current channel name and channel number will be displayed for 5 seconds.
- The current program type and channel number will then be displayed for 5 seconds.

- The current channel number will then be displayed until an action occurs.

A CD or tape may remain in the radio while in the Satellite radio mode.

## Selecting a Channel

Press and release the SEEK or TUNE buttons to search for the next channel. Press the top of the button to search up and the bottom of the button to search down. Holding the TUNE button causes the radio to bypass channels until the button is released.

Press and release the SCAN button (if equipped) to automatically change channels every 7 seconds. The radio will pause on each channel for 7 seconds before moving on to the next channel. The word "SCAN" will appear in the display between each channel change. Press the SCAN button a second time to stop the search.

**NOTE:** Channels that may contain objectionable content can be blocked. Contact Sirius Customer Care at 888-539-7474 to discuss options for channel blocking or unblocking. Please have your ESN/SID information available.

### **Storing and Selecting Pre-Set Channels**

In addition to the 10 AM and 10 FM pre-set stations, you may also commit 10 satellite stations to push button memory. These satellite channel pre-set stations will not erase any AM or FM pre-set memory stations. Follow the memory pre-set procedures that apply to your radio.

### **Using the PTY (Program Type) Button (If Equipped)**

Follow the PTY button instructions that apply to your radio.

#### **PTY Button "SCAN"**

When the desired program type is obtained, press the "SCAN" button within five seconds. The radio will play 7 seconds of the selected channel before moving to the next channel of the selected program type. Press the "SCAN" button a second time to stop the search.

**NOTE:** Pressing the "SEEK" or "SCAN" button while performing a music type scan will change the channel by one and stop the search. Pressing a pre-set memory button during a music type scan, will call up the memory channel and stop the search.

#### **PTY Button "SEEK"**

When the desired program is obtained, press the "SEEK" button within five seconds. The channel will change to the next channel that matches the program type selected.

## Satellite Antenna

To ensure optimum reception, do not place items on the roof around the rooftop antenna location. Metal objects placed within the line of sight of the antenna will cause decreased performance. Larger luggage items should be placed as far forward as possible. Do not place items directly on or above the antenna.

## Reception Quality

Satellite reception may be interrupted due to one of the following reasons.

- The vehicle is parked in an underground parking structure or under a physical obstacle.
- Dense tree coverage may interrupt reception in the form of short audio mutes.
- Driving under wide bridges or along tall buildings can cause intermittent reception.
- Placing objects over or too close to the antenna can cause signal blockage.

## CD/DVD DISC MAINTENANCE

To keep the CD/DVD discs in good condition, take the following precautions:

1. Handle the disc by its edge; avoid touching the surface.
2. If the disc is stained, clean the surface with a soft cloth, wiping from center to edge.
3. Do not apply paper, paper CD labels, or tape to the disc; avoid scratching the disc.
4. Do not use solvents such as benzine, thinner, cleaners, or antistatic sprays.
5. Store the disc in its case after playing.
6. Do not expose the disc to direct sunlight.
7. Do not store the disc where temperatures may become too high.

## RADIO OPERATION AND CELLULAR PHONES

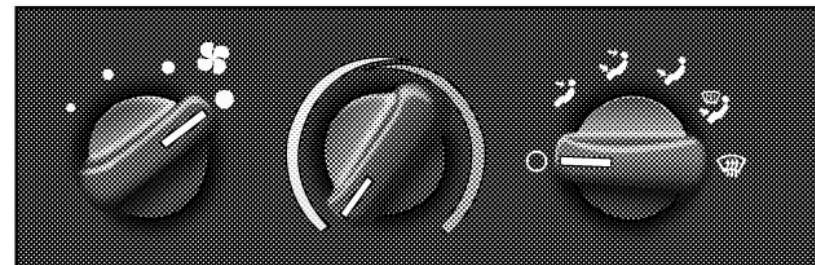
Under certain conditions, the cellular phone being On in your vehicle can cause erratic or noisy performance from your radio. This condition may be lessened or eliminated by relocating the cellular phone antenna. This condition is not harmful to the radio. If your radio performance does not satisfactorily "clear" by the repositioning of the antenna, it is recommended that the radio volume be turned down or off during cellular phone operation.

## CLIMATE CONTROLS

The controls for the heating and ventilation system in this vehicle consist of three rotary control knobs.

**NOTE:** For the HVAC to operate efficiently and reduce the possibility of fog build up on the interior of the windows, the air exhausters should be kept clear at all times. The air exhausters are the slots located on the rear tailgate.

## Heater Only — If Equipped



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### Manual Heater Control

In snowy weather, always clear the air inlet grille at the base of the windshield before driving your vehicle.

## Blower Switch

 The blower switch is the rotary knob to the left of the controls. The blower speed will increase as the knob is turned clockwise. There are four blower speeds.

**NOTE:** The blower motor will run until the mode control knob is turned to the "Off" ("O") position or the ignition is turned OFF.

## Temperature Control

The temperature control is the center knob located on the climate controls. It controls the temperature of the air delivered to the passenger compartment.

You can choose your degree of comfort by rotating the knob. The coldest setting is to the extreme left (blue region) and the warmest setting is to the extreme right (red region).

## Mode Selection

The mode selector is the right knob located on the climate controls. It can be set in any of the following positions:

### Off

 This position turns off the blower motor. In this mode, there may be some slight air flow from the floor outlets, side window outlets, and defrost outlet located at the base of the windshield.

### Panel

 Outside air comes from the outlets in the instrument panel. Each of these outlets can be individually adjusted to direct the flow of air. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

### *Bi-Level*

 Outside air comes from both instrument panel and floor outlets. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

### *Floor*

 Outside air comes from the floor outlets. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

### *Mix*

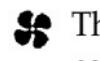
 Outside air comes from the floor and defrost outlets with air being directed through the demisters. This mode works best in cold or snowy conditions. It allows you to stay comfortable while keeping the windshield clear.

### *Defrost*

 Outside air comes from the windshield outlets with a slight amount of air being directed through the floor and demisters. Use this setting when necessary to defrost or defog your windshield.

### **Air Conditioning — If Equipped**

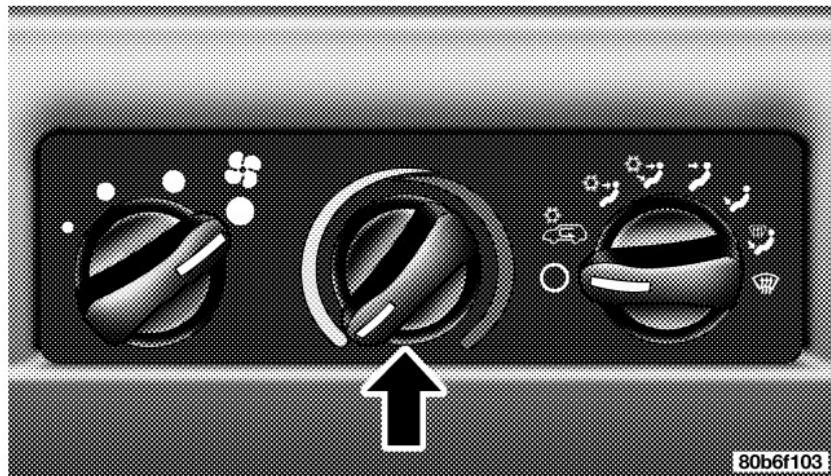
#### **Blower Switch**

 The blower switch is the rotary knob to the left of the controls. Turn the knob to the right to one of the four positions to obtain the blower speed you desire.

**NOTE:** The blower motor will run until the mode selector knob is turned to the "Off" ("O") position or the ignition is turned OFF.

#### **Temperature Control**

The temperature control is the center knob located on the climate controls. It controls the temperature of the air delivered to the passenger compartment.



**Temperature Control Knob**

You can choose your degree of comfort by rotating the knob. The coldest setting is to the extreme left (blue region) and the warmest setting is to the extreme right (red region).

### Mode Selection

The mode selector is the right knob located on the climate controls. It can be set in any of the following positions:



**Mode Selection Knob**

**Off**

 Turning the rotary knob to this position shuts off the blower motor and outside air will not come through any outlet.

**Recirculation**

 Select this position when the outside air contains smoke, odors, high humidity, or if rapid cooling is desired. This feature allows for recirculation of interior air only. Air flows through the panel outlets in this mode. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

**Panel**

 Outside air flows through the air conditioning system, and then through the outlets located in the instrument panel. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

**Bi-Level**

 Outside air flows through the air conditioning system, and then through the outlets located in the instrument panel and those located on the floor. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

**Panel**

 Outside air comes from the outlets in the instrument panel. Each of these outlets can be individually adjusted to direct the flow of air. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

**Floor**

 Outside air comes from the floor outlets. Also, a slight amount of airflow may be noticed at the defrost outlet located at the base of the windshield.

**Mix**

Outside air comes from the floor and defrost outlets. This mode works best in cold or snowy conditions. It allows you to stay comfortable while keeping the windshield clear.

**Defrost**

Outside air comes from the windshield outlets with a small amount being directed through the floor outlets. Use this setting when necessary to defrost your windshield.

**NOTE:** For improved safety, the A/C compressor is activated when "Mix" or "Defrost" modes are selected. This is done to assist in drying the air and it will help in keeping the windshield from fogging.

**Operating Tips****Summer Operation**

The engine cooling system in air conditioned vehicles must be protected with a high-quality antifreeze coolant to provide proper corrosion protection and to protect against engine overheating. A 50% solution of ethylene glycol antifreeze coolant in water is recommended.

**Winter Operation**

The air from the heater system will heat faster in cold weather if you use lower blower speeds until the engine warms up. When operating the system during the winter months, make sure the air intake, located directly in front of the windshield, is free of ice, slush, snow, or other obstructions.

## Window Fogging

In mild but rainy or humid weather, the windows might fog on the inside. To clear the fog off all of the windows, turn the mode control knob to the "Panel" position (with snowflake). Adjust the temperature control and blower speed to maintain comfort. Direct the panel outlets toward the side windows. Interior fogging on the windshield can be quickly removed by selecting the "Defrost" position.

# STARTING AND OPERATING

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## STARTING PROCEDURES

Before starting your vehicle, adjust your seat, adjust both inside and outside mirrors, and fasten your seat belts.

### WARNING!

**Do not leave children or animals inside parked vehicles in hot weather. Interior heat build up may cause serious injury or death.**

## Manual Transmission

Apply the parking brake, place the gearshift control lever in N (Neutral) and depress the clutch pedal before starting vehicle. This vehicle is equipped with a clutch interlocking ignition system. It will not start unless the clutch pedal is pressed to the floor.

### WARNING!

**You or others around you could be injured if you attempt to start the engine with a manual transmission in gear — your vehicle will move. Remember, always push the clutch pedal in fully and shift into N (Neutral) before attempting to start the engine.**

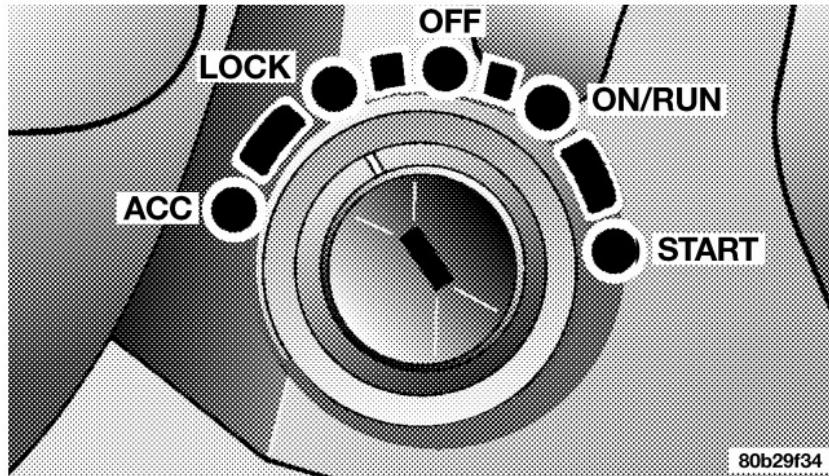
## Automatic Transmission

Start the engine with the selector lever in the N (Neutral) or P (Park) position. Apply the brake before shifting to any driving range.

## Normal Starting

Normal starting of either a cold or a warm engine is obtained without pumping or depressing the accelerator pedal. Turn the key to the START position and release when the engine starts. If the engine fails to start within

10 seconds, turn the key to the OFF position, wait 5 seconds, then repeat the normal starting procedure.



Ignition Key Positions

## Extreme Cold Weather (below $-20^{\circ}\text{F}$ or $-29^{\circ}\text{C}$ )

To insure reliable starting at these temperatures, use of an externally powered electric engine block heater (available from your dealer) is recommended.

## If Engine Fails to Start

If the engine fails to start after you have followed the "Normal Starting" or "Extreme Cold Weather" procedures, it may be flooded. Push the accelerator pedal all the way to the floor and hold it there while cranking the engine. This should clear any excess fuel in case the engine is flooded.

### CAUTION!

To prevent damage to the starter, do not crank the engine for more than 15 seconds at a time. Wait 10 to 15 seconds before trying again.

If the engine has been flooded, it may start to run, but not have enough power to continue running when the key is released. If this occurs, continue cranking with the accelerator pedal pushed all the way to the floor. Release the accelerator pedal and the key once the engine is running smoothly.

If the engine shows no sign of starting after two 15 second periods of cranking with the accelerator pedal held to the floor, the "Normal Starting" or "Extreme Cold Weather" procedures should be repeated.

### WARNING!

Never pour fuel or other flammable liquids into the throttle body air inlet opening in an attempt to start the vehicle. This could result in a flash fire causing serious personal injury.

### After Starting

The idle speed will automatically decrease as the engine warms up.

### CAUTION!

Long periods of engine idling, especially at high engine speeds can cause excessive exhaust temperatures which can damage your vehicle. Do not leave your vehicle unattended with the engine running.

### ENGINE BLOCK HEATER — IF EQUIPPED

The engine block heater warms engine coolant and permits quicker starts in cold weather. Connect the cord to a standard 110-115 volt AC electrical outlet with a grounded, three wire extension cord. The engine block heater cord is found under the hood clipped to the tie rod between the radiator grille and the dash panel.

**WARNING!**

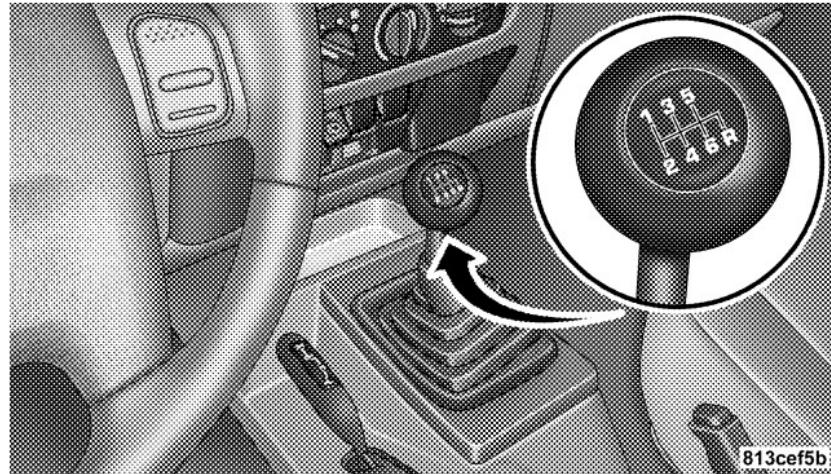
Remember to disconnect the cord before driving.  
Damage to the 110-115 volt AC electrical cord could  
cause electrocution.

Use the heater when temperatures below 0°F (-18°C) are expected to last for several days.

**TRANSMISSION SHIFTING****6-Speed Manual Transmission**

Follow the shift pattern on the gearshift knob.

**NOTE:** The backup lights will come on when your vehicle is in reverse gear and the ignition is in the ON position.



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**Manual Shift Controls**

**WARNING!**

**When parking your vehicle, always leave a manual transmission in first gear and apply the parking brake fully to guard against vehicle movement and possible injury or damage. Never use any gear as a substitute for the parking brake.**

**CAUTION!**

**To drive as safely as possible and to prolong the life of your manual transmission, follow these tips:**

- Before shifting from a forward gear into reverse, or from reverse to a forward gear, stop vehicle completely. Otherwise, transmission damage may result.

- Do not operate at sustained high engine or road speeds in lower gears. Engine damage may result.
- Do not downshift into a low gear while traveling at too high a speed for that gear. Engine, clutch, or transmission damage may result.
- Do not rest your foot on the clutch pedal. This causes heat buildup and damages the clutch.
- When you slow down or go up a grade, downshift as speed requires or the engine may overheat.
- Never hold the vehicle stopped on a hill by using the clutch pedal. The clutch may be damaged.
- During cold weather, you may experience increased effort in shifting until the transmission fluid warms up. This is normal.
- Push in the clutch pedal completely when shifting. Otherwise, transmission or clutch damage may result.

- When “rocking” a stuck vehicle by shifting between a forward gear and reverse, do not spin wheels faster than 15 mph (24 km/h), or drivetrain damage may result.

## Recommended Manual Transmission Shifting Speeds

| Manual Transmission Shift Speeds in MPH (KM/H) |        |         |            |            |            |            |
|--|--------|---------|------------|------------|------------|------------|
| Engine   | Speeds | 1 to 2  | 2 to 3     | 3 to 4     | 4 to 5     | 5 to 6     |
| 2.4L   | Accel. | 14 (23) | 24<br>(39) | 34<br>(55) | 46<br>(74) | 57<br>(92) |
|  | Cruise | 11 (18) | 19<br>(31) | 27<br>(43) | 38<br>(61) | 45<br>(72) |
| 4.0L   | Accel. | 15 (24) | 24<br>(39) | 34<br>(55) | 47<br>(76) | 56<br>(90) |
|  | Cruise | 10 (16) | 19<br>(31) | 27<br>(43) | 37<br>(60) | 41<br>(66) |

## Clutch Interlocking Ignition System (Non — Rubicon Models Only)

Manual transmission vehicles are equipped with a clutch interlock safety feature. With this feature engaged, you must depress the clutch pedal to allow cranking of the engine. To temporarily bypass this safety feature while off-road driving (4L range only), which will allow cranking the engine without depressing the clutch, follow these steps:

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- Locate the Power Distribution Center (PDC) in the engine compartment. Refer to “Fuse Panel” in Section 7 of this manual. (See page 305 for more information.)

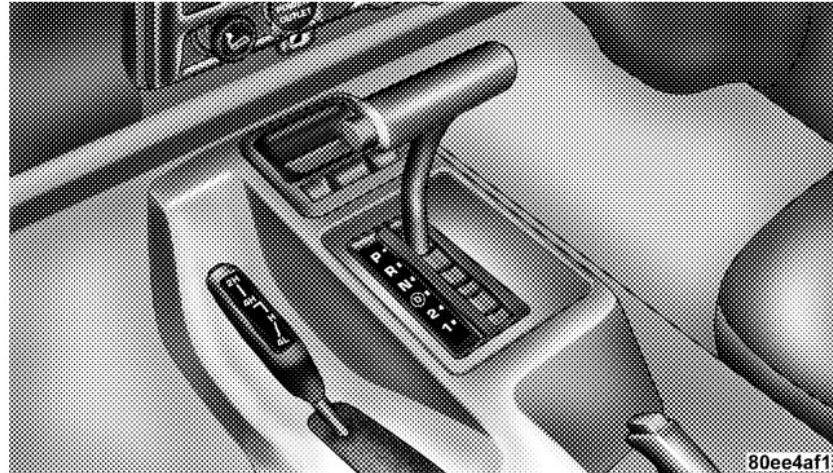
- Put a 10 Amp fuse in the PDC cavity (#28) marked as Clutch Override.

**NOTE:** A fuse is provided in fuseblock cavity (f19 or f20) marked as Spare.

3. Be sure to re-engage the clutch interlock safety feature by following these steps in reverse order when you are finished off-road driving.

### Automatic Transmission

Shifting from D (Drive) to P (Park) or R (Reverse) (or from P or R to D) should be done only after the accelerator pedal is released and the vehicle is stopped. Be sure to keep your foot on the brake when moving the shift lever between these gears.



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**Automatic Shift Controls**

## WARNING!

**It is dangerous to shift the selector lever out of "P" or "N" if the engine speed is higher than idle speed. If your foot is not firmly on the brake pedal, the vehicle could accelerate quickly forward or in reverse. You could lose control of the vehicle and hit someone or something. Only shift into gear when the engine is idling normally and when your right foot is firmly on the brake pedal.**

### Brake Transmission Shift Interlock System

This vehicle is equipped with a brake transmission shift interlock system (BTSI) that holds the gearshift lever in the P (Park) position when the ignition switch is in the OFF position. To move the gear selector lever out of the P (Park) position, the ignition switch must be turned to the ON position, the brake pedal and the button on the front of the shifter handle must be depressed.

### Gear Ranges

#### *P (Park)*

Supplements the parking brake by locking the transmission. The engine can be started in this range. Never use P (Park) while the vehicle is in motion. Apply the parking brake when leaving the vehicle in this range. Always apply the parking brake first, and then place the selector in P (Park) position.

**WARNING!**

Unintended movement of a vehicle could injure those in and near the vehicle. As with all vehicles, you should never exit a vehicle while the engine is running. Before exiting a vehicle, you should always shift the vehicle into P (Park), remove the key from the ignition, and apply the parking brake. Once the key is removed from the ignition, the transmission shift lever is locked in the P (Park) position, securing the vehicle against unwanted movement. Furthermore, you should never leave children unattended inside a vehicle.

The following indicators should be used to ensure that you have engaged the transmission shift lever into the P (Park) position:

- When shifting into P (Park), depress the button on the shift lever and firmly move the lever all the way forward until it stops.
- Look at the shift indicator window on the console to ensure it is in the P (Park) position.
- When engaged in P (Park), you will not be able to move the shifter rearward without depressing the shift lever button.

**CAUTION!**

Before moving the shift lever out of P (Park), you must turn the ignition from LOCK to ON so the steering wheel and shift lever are released. Otherwise, damage to the steering column or shifter could result.

**R (Reverse)**

For moving the vehicle rearward. Always stop before moving the lever to R (Reverse), except when rocking the vehicle.

**N (Neutral)**

Engine may be started in this position.

**NOTE:** Towing the vehicle, coasting, or otherwise driving with the transmission in N (Neutral) can cause severe damage to the transmission.

**WARNING!**

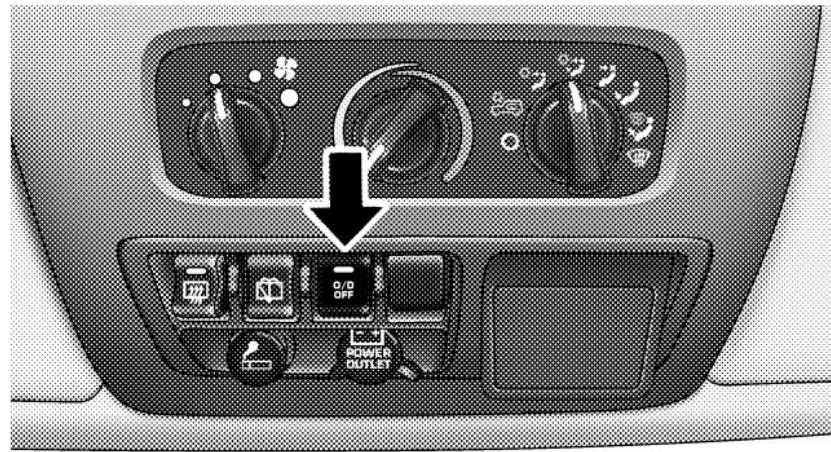
**Do not coast in N (Neutral) and never turn off the ignition to coast down a hill. These are unsafe practices that limit your response to changing traffic or road conditions. You might lose control of the vehicle.**

**Overdrive (O/D)**

For most city and highway driving. The transmission contains an electronically controlled Overdrive, and will automatically shift from D (Drive) to O/D (Overdrive) if the following conditions are present:

- The transmission selector is in D (Drive).
- The O/D OFF switch has not been activated.
- Vehicle speed is above approximately 30 mph (48 km/h). **5**

When frequent transmission shifting occurs while using Overdrive, such as when operating the vehicle under heavy load conditions (for example, in hilly terrain, strong head winds, or trailer towing), turning off overdrive will improve performance and extend transmission life by reducing excessive shifting and heat buildup.



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**Overdrive Off Switch**

Overdrive can be locked out by pressing the O/D OFF switch located on the instrument panel. The O/D OFF indicator light (on the switch) will illuminate to show that the switch has been activated. When the indicator light is on, Overdrive is locked out. Pressing the switch a second time restores the Overdrive function. The lockout feature is useful when towing a trailer or carrying a heavy load.

#### **2 (Second)**

For moderate grades and to assist braking on dry pavement or in mud and snow. Begins at a stop in low gear with automatic upshift to 2nd gear. Will not shift to 3rd.

#### **1 (First)**

For hard pulling at low speeds in mud, sand, snow, or on steep grades. Begins and stays in low gear with no upshift. Provides engine compression braking at low speeds.

**WARNING!**

Never use P (Park) position with an automatic transmission as a substitute for the parking brake. Always apply parking brake fully when parked to guard against vehicle movement and possible injury or damage.

**CAUTION!**

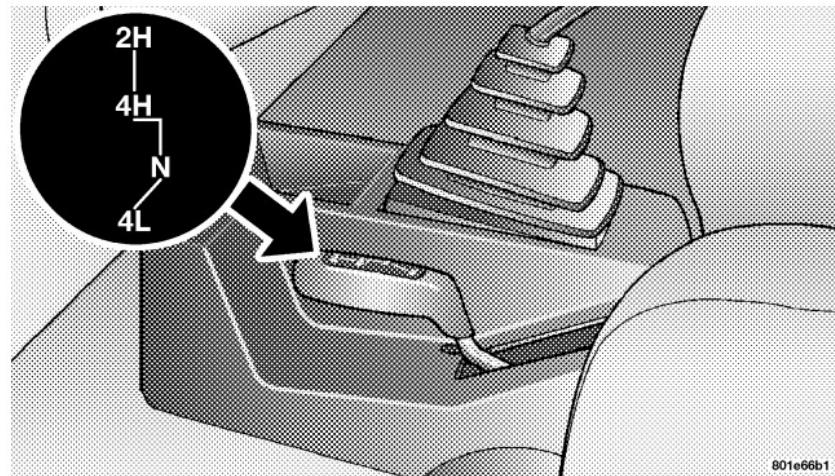
- Before moving the shift lever out of P (Park), you must turn the ignition from LOCK so the steering wheel and shift lever are released. Otherwise, damage to steering column or shifter could result.
- Never race the engine with the brakes on and the vehicle in gear, and never hold the vehicle on an incline without applying the brakes. These practices can overheat and damage the transmission.
- When “rocking” a stuck vehicle by moving between D (Drive) and R (Reverse), do not spin the wheels faster than 15 mph (24 km/h), or drivetrain damage may result.

**NOTE:** The transmission electronics constantly monitor the transmission oil temperature. If the transmission gets too hot, the transmission will change the way it shifts to help control the condition. This may result in a slightly different feeling or response during normal operation in D (Drive) position. If the transmission becomes hot enough, the TRANS TEMP warning light in the instrument cluster will come on. After the transmission cools down, it will return to normal operation.

### Torque Converter Clutch

A feature designed to improve fuel economy has been added to the automatic transmission of this vehicle. A clutch within the torque converter engages automatically at calibrated speeds. This may result in a slightly different feeling or response during normal operation in high gear. When the vehicle speed drops or during acceleration, the clutch automatically and smoothly disengages.

### FOUR-WHEEL DRIVE OPERATION (COMMAND-TRAC™ OR ROCK-TRAC™) — IF EQUIPPED



**4WD Shift Controls**

## Operating Instructions/Precautions

The transfer case provides four mode positions — two (rear) wheel drive high range, four wheel drive high range, neutral, and four wheel drive low range.

This transfer case is intended to be driven in the two wheel drive (2H) position for normal street and highway conditions such as dry hard surfaced roads.

In the events when additional traction is required, the transfer case 4H and 4L positions can be used to lock the front and rear driveshafts together and force the front and rear wheels to rotate at the same speed. This is accomplished by simply moving the shift lever to these positions. The 4H and 4L positions are intended for loose, slippery road surfaces only. Driving in the 4H and 4L positions on dry hard surfaced roads may cause increased tire wear and damage to the driveline components.

The 4WD indicator light, located in the instrument panel, alerts the driver that the vehicle is in four wheel drive and that the front and rear driveshafts are locked together. This light illuminates when the transfer case is shifted to either the 4H or 4L positions.

**NOTE:** Do not attempt to make a shift while only the front or rear wheels are spinning. The transfer case is not equipped with a synchronizer and therefore the front and rear driveshafts speeds must be equal for the shift to take place. Shifting while only the front or rear wheels are spinning can cause damage to the transfer case.

When operating your vehicle in 4L, the engine speed is approximately three times that of the 2H or 4H positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

Proper operation of four wheel drive vehicles depends on tires of equal size, type, and circumference on each wheel. Any difference will adversely affect shifting and cause damage to the transfer case.

Because four wheel drive provides improved traction, there is a tendency to exceed safe turning and stopping speeds. Do not go faster than road conditions permit.

## WARNING!

You or others could be injured if you leave the vehicle unattended with the transfer case in the N (Neutral) position without first fully engaging the parking brake. The transfer case N (Neutral) position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move regardless of the transmission position. The parking brake should always be applied when the driver is not in the vehicle.

## Shift Positions

For additional information on the appropriate use of each transfer case mode position, see the information below:

### 2H Position

Rear Wheel Drive High Range — Normal street and highway driving. Dry hard surfaced roads.

## 4H Position

Four Wheel Drive High Range — Locks the front and rear driveshafts together. Forces the front and rear wheels to rotate at the same speed. Additional traction for loose, slippery road surfaces.

**NOTE:** This range should not be used during dry pavement operation.

## N (Neutral) Position

Neutral — Disengages both the front and rear driveshafts from the powertrain. To be used for flat towing behind another vehicle. Refer to "Recreational Towing" in Section 5 of this manual. (See page 248 for more information.)

## 4L Position

Four Wheel Drive Low Range — Locks the front and rear driveshafts together. Forces the front and rear wheels to

rotate at the same speed. Additional traction and maximum pulling power for loose, slippery road surfaces only. Do not exceed 25 mph (40 km/h).

## Shifting Procedure

### 2H to 4H or 4H to 2H

Shifting between 2H and 4H can be made with the vehicle stopped or in motion. If the vehicle is in motion, shifts can be made up to 55 mph (88 km/h). With the vehicle in motion, the transfer case will engage/disengage faster if you momentarily release the accelerator pedal after completing the shift. Apply a constant force when shifting the transfer case lever.

### 4H to 4L or 4L to 4H

With the vehicle rolling at 2 to 3 mph (3 to 5 km/h), shift an automatic transmission to N (Neutral) or depress the clutch pedal on a manual transmission. While the vehicle

is coasting at 2 to 3 mph (3 to 5 km/h), shift the transfer case lever firmly to the desired position. Do not pause in transfer case N (Neutral).

**NOTE:** Pausing in transfer case N (Neutral) in vehicles equipped with an automatic transmission may require shutting the engine OFF to avoid gear clash while completing the shift. If difficulty occurs, shift the automatic transmission to N (Neutral), hold foot on brake, and turn the engine OFF. Make shift to desired mode.

**NOTE:** Shifting into or out of 4L is possible with the vehicle completely stopped, however, difficulty may occur due to the mating teeth not being properly aligned. Several attempts may be required for clutch teeth alignment and shift completion to occur. The preferred method is with the vehicle rolling at 2 to 3 mph (3 to 5 km/h). Avoid attempting to engage or disengage 4L with the vehicle moving faster than 2 to 3 mph (3 to 5 km/h).

## WARNING!

Failure to engage a position completely can cause transfer case damage or loss of power and vehicle control. You could have an injury accident. Do not drive the vehicle unless the transfer case is fully engaged.

## TRAC-LOK™ REAR AXLE

The Trac-Lok™ rear axle provides a constant driving force to both rear wheels and reduces wheel spin caused by the loss of traction at one driving wheel. If traction differs between the two rear wheels, the differential automatically proportions the usable torque by providing more torque to the wheel that has traction.

Trac-Lok™ is especially helpful during slippery driving conditions. With both rear wheels on a slippery surface, a

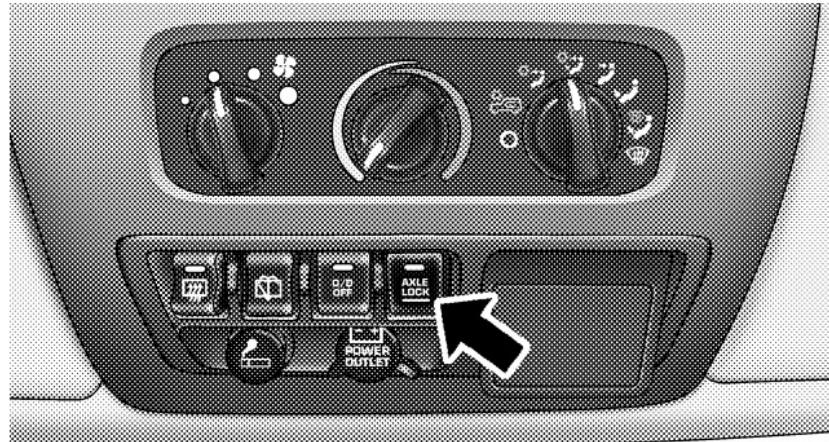
slight application of the accelerator will supply maximum traction. When starting with only one rear wheel on an excessively slippery surface, slight application of the parking brake may be necessary to gain maximum traction.

### WARNING!

On vehicles equipped with a limited-slip differential, never run the engine with one rear wheel off the ground. The vehicle may drive through the rear wheel remaining on the ground and cause you to lose control of your vehicle.

### AXLE LOCK (TRU-LOK™) — IF EQUIPPED

The Axle Lock switch is located on the lower center of the instrument panel.



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#### Axle Lock Switch

This feature will only activate when the following conditions are met:

- Key in ignition, vehicle in 4L (Low) range.

- Vehicle speed should be 10 mph (16 km/h) or less.

To activate the system, press the switch once to lock the rear axle only (the REAR LOCK indicator light will illuminate), press the switch again to lock the front axle (the FRONT LOCK indicator light will illuminate). Once the rear axle is locked, pressing the switch again will lock or unlock the front axle.

**NOTE:** The indicator lights will flash until the axles are fully locked or unlocked. A chime will sound three times and the indicator lights will continue to flash at a different rate if the key is removed while the axles are still in the locked position.

To unlock the axles, pull up on the switch.

Axle lock will disengage if vehicle is taken out of 4L (Low) range.

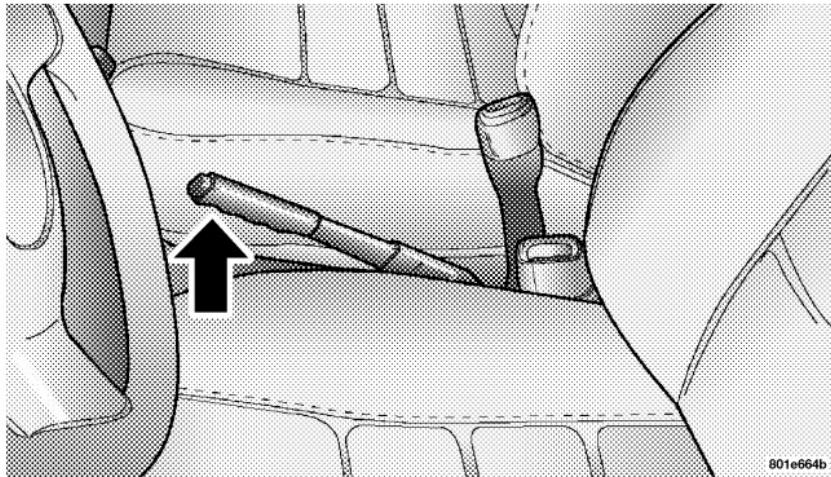
## PARKING BRAKE

To set the parking brake, pull the lever up as firmly as possible. When the parking brake is applied with the ignition ON, the BRAKE warning light in the instrument cluster will light.

**NOTE:** The BRAKE warning light indicates only that the parking brake is applied. It does not indicate the degree of brake application.

**NOTE:** If the parking brake is applied and the vehicle is in motion, the BRAKE warning light will flash and a chime will sound.

To release the parking brake, pull up slightly, press center button, then lower lever completely.



Parking Brake Release

If the parking brake is not completely released, the BRAKE warning light will remain on.

**NOTE:** Your vehicle has automatically adjusting rear brakes and we do not recommend any adjustment other than the maintenance performed by your authorized dealer.

Before leaving the vehicle parked on a hill, you must make sure the parking brake is fully applied and place the gear selector in the P (Park) position (automatic transmission) or first gear (manual transmission). Make certain the transfer case is in gear. Failure to do so may cause the vehicle to roll and cause damage or injury.

**WARNING!**

- Always fully apply the parking brake when leaving your vehicle, or vehicle may roll and cause damage or injury. Also be certain to leave a automatic transmission in P (Park), or a manual transmission in 1st gear. Make certain the transfer case is in gear. Failure to do so may cause the vehicle to roll and cause damage or injury.
- If the parking brake is released, and the BRAKE warning light glows while the ignition switch is ON or the engine is running, there may be a brake system problem. Brake pedal travel, effort and stopping distances may increase, and you should obtain corrective service immediately.

When parking on a hill, it is important to set the parking brake before placing the gear selector in P (Park), otherwise the load on the transmission locking mechanism may make it difficult to move the selector out of P (Park).

The parking brake should always be applied when the driver is not in the vehicle.

**WARNING!**

- Leaving children unattended in a vehicle is dangerous for a number of reasons. A child or others could be injured. Children should be warned not to touch the parking brake or the gear selector lever. Don't leave the keys in the ignition. A child could operate controls or move the vehicle.

## ABOUT YOUR BRAKES

Your vehicle is equipped with power assisted brakes as standard equipment. In the event power assist is lost for any reason (for example, repeated brake applications with the engine off), the brakes will still function. The effort required to brake the vehicle will be much greater than that required with the power system operating.

If either of two hydraulic systems lose normal capability, the remaining system will still function with some loss of overall braking effectiveness. This will be evident by increased pedal travel during application and greater pedal force required to slow or stop.

### WARNING!

Riding the brakes can lead to brake failure and possibly an accident. Driving with your foot resting or riding on the brake pedal can result in abnormally high brake temperatures, excessive lining wear, and possible brake damage. You wouldn't have your full braking capacity in an emergency.

**WARNING!**

To use your brakes and decelerate more safely, follow these tips:

- Do not "ride" the brakes by resting your foot on the pedal. This could overheat the brakes and result in unpredictable braking action, longer stopping distances, or brake damage.
- When descending mountains or hills, repeated braking can cause brake fade with loss of braking control. Avoid repeated heavy braking by downshifting the transmission whenever possible.
- Do not downshift on icy or slippery roads, because engine braking may cause skidding and loss of control.
- Engines may idle at higher speeds during warm-up, which could cause rear wheels to spin and result in loss of vehicle control. Be especially careful while driving on slippery roads, in close-quarter maneuvering, parking or stopping. Remember, always engage 4-wheel drive when driving on slippery roads.
- Do not drive too fast for road conditions, especially when roads are wet or slushy. A wedge of water can build up between the tire tread and the road. This hydroplaning action can cause loss of traction, braking ability, and control. Under such conditions, engage 4-wheel drive.
- After going through deep water or a car wash, brakes may become wet, resulting in poor performance and unpredictable braking action. Dry the brakes by gentle, intermittent pedal action while driving at very slow speeds.

**WARNING!**

The weight and position of cargo and passengers can change the vehicle center of gravity and vehicle handling. To avoid loss of control resulting in personal injury, follow these guidelines:

- Always place cargo evenly on the cargo floor, and locate heavier objects as low and as far forward as possible.
- Place as much cargo as possible in front of the rear axle. Too much weight or improperly placed weight over or behind the rear axle can cause the rear of the vehicle to sway.
- Do not pile luggage or cargo higher than the top of the seatback. This could impair visibility or become a dangerous projectile in a sudden stop or collision.
- The rear cargo space is intended for load carrying purposes only, not for passengers, who should sit in seats and use seat belts.
- On hardtop models, do not drive with the lift glass up. On fabric top models, do not drive with the rear window curtain up unless the side curtains are also open. This will prevent dangerous exhaust fumes from entering the vehicle.

**WARNING!**

To help avoid personal injury, follow these tips:

- Never reach through the steering wheel to operate steering column controls. Injury to your hands or loss of vehicle control may result.
- If the engine stalls or power assist fails due to a malfunction, vehicle steering and braking will require greater effort.

**ANTI-LOCK BRAKE SYSTEM — IF EQUIPPED**

The Anti-Lock Brake System is designed to aid the driver in maintaining vehicle control under adverse braking conditions. The system operates with a separate computer to modulate hydraulic pressure to prevent wheel lock-up and help avoid skidding on slippery surfaces.

All vehicle wheels and tires must be the same size and type and tires must be properly inflated to produce accurate signals for the computer.

**WARNING!**

Significant over or under-inflation of tires, or mixing sizes of tires or wheels on the vehicle can lead to loss of braking effectiveness.

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The Anti-Lock Brake System conducts a low speed self-test at about 12 mph (20 km/h). If for any reason, your foot is on the brake when the vehicle reaches 12 mph (20 km/h), this check will be delayed until 25 mph (40 km/h).

The Anti-Lock Brake System pump motor runs during the self-test and during an ABS stop to provide the regulated hydraulic pressure. The motor pump makes a low humming noise during operation, this is normal.

During off-road use, loss of traction can temporarily defeat the system and cause the warning light to illuminate. Turn the ignition OFF and ON again to restore Anti-Lock Brake System function.

### WARNING!

Pumping of the Anti-Lock Brakes will diminish their effectiveness and may lead to an accident. Pumping makes the stopping distance longer. Just press firmly on your brake pedal when you need to slow down or stop.

### WARNING!

- Anti-lock system (ABS) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking or steering efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.
- The ABS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.
- The capabilities of an ABS equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.

## CAUTION!

The Anti-Lock Brake System is subject to possible detrimental effects of electronic interference caused by improperly installed aftermarket radios or telephones.

**NOTE:** During severe braking conditions, a pulsing sensation may occur and a clicking noise will be heard. This is normal, indicating that the Anti-Lock Brake System is functioning.

## POWER STEERING

The standard power steering system will give you good vehicle response and increased ease of maneuverability in tight spaces. The system will provide mechanical steering capability if power assist is lost.

If for some reason, the power assist is interrupted, it will still be possible to steer your vehicle. Under these conditions you will observe a substantial increase in steering effort, especially at very low vehicle speeds and during parking maneuvers.

**NOTE:** Increased noise levels at the end of the steering wheel travel are considered normal and does not indicate that there is a problem with the power steering system.

Upon initial start-up in cold weather, the power steering pump may make noise for a short period of time. This is due to the cold, thick fluid in the steering system. This noise should be considered normal, and does not in any way damage the steering system.

**WARNING!**

Continued operation with reduced power steering assist could pose a safety risk to yourself and others. Service should be obtained as soon as possible.

**CAUTION!**

Prolong operation of the steering system at the end of the steering wheel travel will increase the steering fluid temperature and should be avoided when possible. Damage to the power steering pump may occur.

**ON-ROAD DRIVING TIPS**

Utility vehicles have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. Specific design characteristics give them a higher center of gravity than ordinary cars.

An advantage of the higher ground clearance is a better view of the road, allowing you to anticipate problems. They are not designed for cornering at the same speeds as conventional 2-wheel drive vehicles any more than low-slung sports cars are designed to perform satisfactorily in off-road conditions. If at all possible, avoid sharp turns or abrupt maneuvers. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle rollover.

## OFF-ROAD DRIVING TIPS

### When To Use 4L (Low) Range

When off-road driving, shift to 4L (Low) for additional traction and control on slippery or difficult terrain, ascending or descending steep hills, and to increase low speed pulling power. This range should be limited to extreme situations such as deep snow, mud, steep inclines, or sand where additional low speed pulling power is needed. Vehicle speeds in excess of 25 mph (40 km/h) should be avoided when in 4L (Low) range.

### Driving Through Water

Although your vehicle is capable of driving through water, there are a number of precautions that must be considered before entering the water:

### CAUTION!

When driving through water, do not exceed 5 mph (8 km/h). Always check water depth before entering as a precaution, and check all fluids afterward. Driving through water may cause damage that may not be covered by the new vehicle limited warranty.

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Driving through water more than a few inches deep will require extra caution to ensure safety and prevent damage to your vehicle. If you must drive through water, try to determine the depth and the bottom condition (and location of any obstacles) prior to entering. Proceed with caution and maintain a steady controlled speed less than 5 mph (8 km/h) in deep water to minimize wave effects.

### Flowing Water

If the water is swift flowing and rising (as in storm run-off) avoid crossing until the water level recedes

and/or the flow rate is reduced. If you must cross flowing water avoid depths in excess of 9 inches. The flowing water can erode the streambed causing your vehicle to sink into deeper water. Determine exit point(s) that are downstream of your entry point to allow for drifting.

### *Standing Water*

Avoid driving in standing water deeper than 20 inches, and reduce speed appropriately to minimize wave effects. Maximum speed in 20 inches of water is less than 5 mph (8 km/h).

### *Maintenance*

After driving through deep water, inspect your vehicle fluids and lubricants (engine oil, transmission oil, axle, transfer case) to assure the fluids have not been contaminated. Contaminated fluid (milky, foamy in appearance) should be flushed/changed as soon as possible to prevent component damage.

### **Driving In Snow, Mud and Sand**

In heavy snow, when pulling a load, or for additional control at slower speeds, shift the transmission to a low gear and shift the transfer case to 4L (Low) if necessary. Refer to "Four-Wheel Drive Operation" in this section. Do not shift to a lower gear than necessary to maintain headway. Over-revving the engine can spin the wheels and traction will be lost.

Avoid abrupt downshifts on icy or slippery roads, because engine braking may cause skidding and loss of control.

### **Hill Climbing**

**NOTE:** Before attempting to climb a hill, determine the conditions at the crest and/or on the other side.

**Before climbing a steep hill,** shift the transmission to a lower gear and shift the transfer case to 4L (Low). Use first gear and 4L (Low) for very steep hills.

If you stall or begin to lose headway while climbing a steep hill, allow your vehicle to come to a stop and immediately apply the brakes. Restart the engine and shift to R (Reverse). Back slowly down the hill allowing the compression braking of the engine to help regulate your speed. If the brakes are required to control vehicle speed, apply them lightly and avoid locking or skidding the tires.

### WARNING!

If the engine stalls or you lose headway or cannot make it to the top of a steep hill or grade, never attempt to turn around. To do so may result in tipping and rolling the vehicle. Always back carefully straight down a hill in R (Reverse) gear. Never back down a hill in N (Neutral) using only the brake.

Remember, never drive diagonally across a hill-always drive straight up or down.

If the wheels start to slip as you approach the crest of a hill, ease off the accelerator and maintain headway by turning the front wheels slowly left and right. This may provide a fresh "bite" into the surface and will usually provide traction to complete the climb.

### Traction Downhill

Shift the transmission into a low gear and the transfer case to 4L (Low) range. Let the vehicle go slowly down the hill with all four wheels turning against engine compression drag. This will permit you to control the vehicle speed and direction.

When descending mountains or hills, repeated braking can cause brake fade with loss of braking control. Avoid repeated heavy braking by downshifting the transmission whenever possible.

## After Driving Off-Road

Off-road operation puts more stress on your vehicle than does most on-road driving. After going off-road it is always a good idea to check for damage. That way you can get any problems taken care of right away and have your vehicle ready when you need it.

- Completely inspect the underbody of your vehicle. Check tires, body structure, steering, suspension, and exhaust system for damage.
- Check threaded fasteners for looseness, particularly on the chassis, drivetrain components, steering, and suspension. Retighten them, if required, and torque to the values specified in the Service Manual.
- Check for accumulations of plants or brush. These things could be a fire hazard. They might hide damage to fuel lines, brake hoses, axle pinion seals, and propeller shafts.

- After extended operation in mud, sand, water, or similar dirty conditions, have brake rotors, wheels, brake linings, and axle yokes inspected and cleaned as soon as possible.

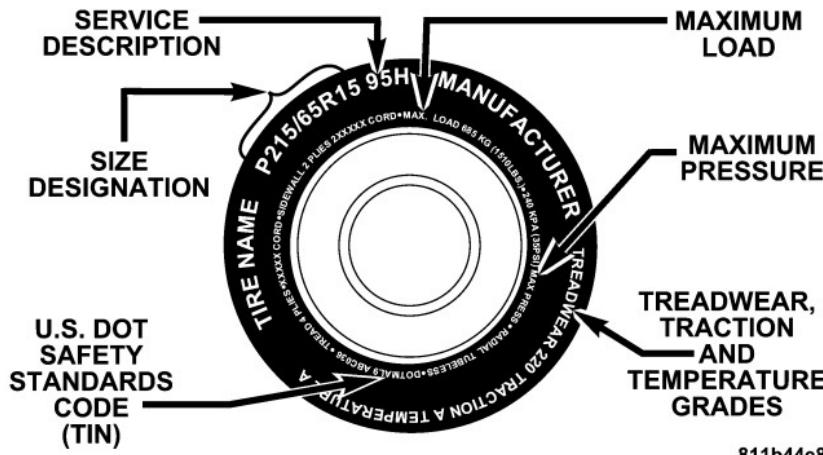
### WARNING!

Abrasive material in any part of the brakes may cause excessive wear or unpredictable braking. You might not have full braking power when you need it to prevent an accident. If you have been operating your vehicle in dirty conditions, get your brakes checked and cleaned as necessary.

- If you experience unusual vibration after driving in mud, slush or similar conditions, check the wheels for impacted material. Impacted material can cause a wheel imbalance and freeing the wheels of it will correct the situation.

## TIRE SAFETY INFORMATION

### Tire Markings



#### NOTE:

- P(Passenger)-Metric tire sizing is based on U.S. design standards. P-Metric tires have the letter "P" molded into the sidewall preceding the size designation. Example: P215/65R15 95H.

- European Metric tire sizing is based on European design standards. Tires designed to this standard have the tire size molded into the sidewall beginning with the section width. The letter "P" is absent from this tire size designation. Example: 215/65R15 96H

- LT(Light Truck)-Metric tire sizing is based on U.S. design standards. The size designation for LT-Metric tires is the same as for P-Metric tires except for the letters "LT" that are molded into the sidewall preceding the size designation. Example: LT235/85R16.

- Temporary Spare tires are high pressure compact spares designed for temporary emergency use only. Tires designed to this standard have the letter "T" molded into the sidewall preceding the size designation. Example: T145/80D18 103M.

- High Flotation tire sizing is based on U.S. design standards and begins with the tire diameter molded into the sidewall. Example: 31x10.5 R15 LT.

## Tire Sizing Chart

### EXAMPLE:

#### Size Designation:

**P** = Passenger car tire size based on U.S. design standards

"....blank...." = Passenger car tire based on European design standards

**LT** = Light Truck tire based on U.S. design standards

**T** = Temporary Spare tire

**31** = Overall Diameter in Inches (in)

**215** = Section Width in Milimeters (mm)

**65** = Aspect Ratio in Percent (%)

—Ratio of section height to section width of tire.

**10.5** = Section Width in Inches (in)

**R** = Construction Code

—"R" means Radial Construction.

—"D" means Diagonal or Bias Construction.

**15** = Rim Diameter in Inches (in)

**EXAMPLE:****Service Description:****95** = Load Index

—A numerical code associated with the maximum load a tire can carry.

**H** = Speed Symbol

—A symbol indicating the range of speeds at which a tire can carry a load corresponding to its load index under certain operating conditions.

—The maximum speed corresponding to the Speed Symbol should only be achieved under specified operating conditions. (ie. tire pressure, vehicle loading, road conditions and posted speed limits).

**Load Identification:****"....blank...."** = Absence of any text on sidewall of the tire indicates a Standard Load (SL) Tire**Extra Load (XL)** = Extra Load (or Reinforced) Tire**Light Load** = Light Load Tire**C,D,E** = Load range associated with the maximum load a tire can carry at a specified pressure**Maximum Load** — Maximum Load indicates the maximum load this tire is designed to carry.**Maximum Pressure** — Maximum Pressure indicates the maximum permissible cold tire inflation pressure for this tire.

**Tire Identification Number (TIN)**

The TIN may be found on one or both sides of the tire however the date code may only be on one side. Tires with white sidewalls will have the full TIN including date code

located on the white sidewall side of the tire. Look for the TIN on the outboard side of black sidewall tires as mounted on the vehicle. If the TIN is not found on the outboard side then you will find it on the inboard side of the tire.

**EXAMPLE:****DOT MA L9 ABCD 0301****DOT** = Department of Transportation

—This symbol certifies that the tire is in compliance with the U.S. Department of Transportation tire safety standards, and is approved for highway use.

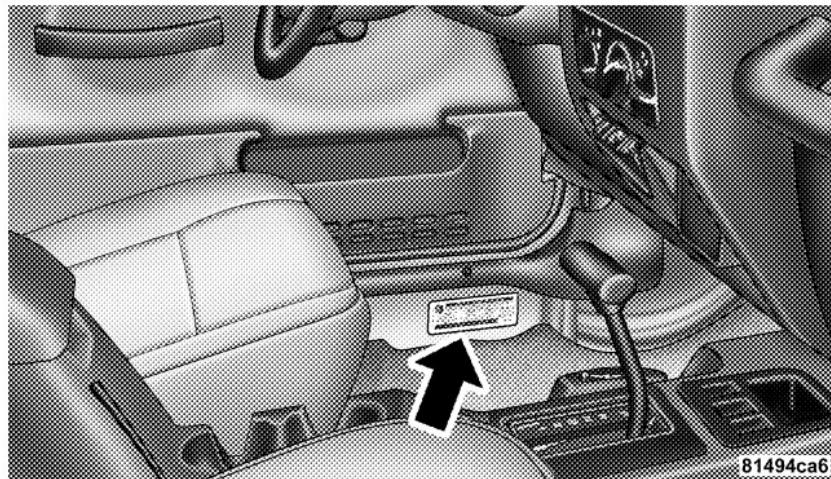
**MA** = Code representing the tire manufacturing location.(2 digits)**L9** = Code representing the tire size.(2 digits)**ABCD** = Code used by tire manufacturer.(1 to 4 digits)**03** = Number representing the week in which the tire was manufactured.(2 digits)  
—03 means the 3rd week.**01** = Number representing the year in which the tire was manufactured.(2 digits)  
—01 means the year 2001.

—Prior to July 2000, tire manufacturers were only required to have 1 number to represent the year in which the tire was manufactured. Example: 031 could represent the 3rd week of 1981 or 1991.

## Tire Loading and Tire Pressure

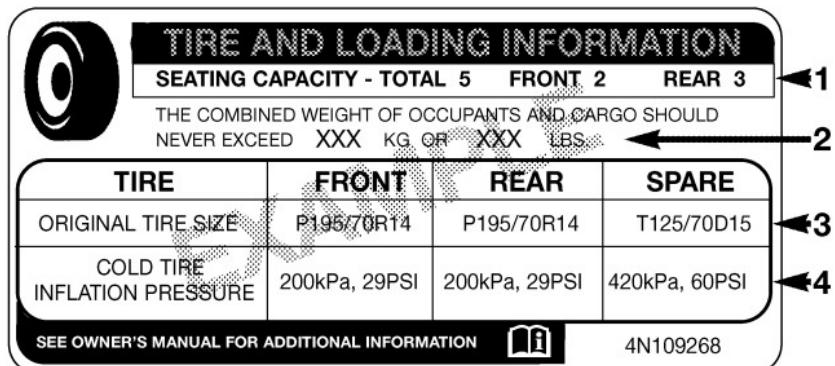
### Tire Placard Location

**NOTE:** The proper cold tire inflation pressures are listed on the lower front inside corner of the driver door opening.



Tire Placard Location

## Tire and Loading Information Placard



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### Tire and Loading Information

This placard tells you important information about the,

- 1) number of people that can be carried in the vehicle
- 2) the total weight your vehicle can carry

- 3) the tire size designed for your vehicle
- 4) the cold tire inflation pressures for the front, rear and spare tires.

### Loading

The vehicle maximum load on the tire must not exceed the load carrying capacity of the tire on your vehicle. You will not exceed the tire's load carrying capacity if you adhere to the loading conditions, tire size and cold tire inflation pressures specified on the Tire and Loading Information placard and the Vehicle Loading section of this manual.

**NOTE:** Under a maximum loaded vehicle condition, gross axle weight ratings (GAWR's) for the front and rear axles must not be exceeded. For further information on GAWR's, vehicle loading and trailer towing, see the Vehicle Loading section of this manual.

To determine the maximum loading conditions of your vehicle, locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on the Tire and Loading Information placard. The combined weight of occupants, cargo/luggage and trailer tongue weight (if applicable) should never exceed the weight referenced here.

#### *Steps for Determining Correct Load Limit*

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX pounds" on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.

4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lb. (since  $5 \times 150 = 750$ , and  $1400 - 750 = 650$  lb.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this

manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

**NOTE:** The following table shows examples on how to calculate total load, cargo/luggage and towing capacities of your vehicle with varying seating configurations and number and size of occupants. This table is for illustration purposes only and may not be accurate for the seating and load carry capacity of your vehicle.

**NOTE:** For the following example the combined weight of occupants and cargo should never exceed 865 lbs. (392 Kg).

| Occupants        |       |      | Combined weight of occupants and cargo from Tire Placard | MINUS | Combined Occupant's weight | = | AVAILABLE Cargo/Luggage and Trailer Tongue Weight |
|------------------|-------|------|--|-------|----------------------------|---|---|
| TOTAL            | FRONT | REAR |  |       |                            |   |   |
| <u>EXAMPLE 1</u> |       |      |  |       |                            |   |   |
| 5                | 2     | 3    |  |       |                            |   |   |
|                  |       |      | 865 lbs  | minus | 670 lbs                    | = | 195 lbs   |
| <u>EXAMPLE 2</u> |       |      |  |       |                            |   |   |
| 3                | 2     | 1    |  |       |                            |   |   |
|                  |       |      | 865 lbs  | minus | 540 lbs                    | = | 325 lbs   |
| <u>EXAMPLE 3</u> |       |      |  |       |                            |   |   |
| 2                | 2     | 0    |  |       |                            |   |   |
|                  |       |      | 865 lbs  | minus | 400 lbs                    | = | 465 lbs   |

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**WARNING!**

Overloading of your tires is dangerous. Overloading can cause tire failure, affect vehicle handling, and increase your stopping distance. Use tires of the recommended load capacity for your vehicle. Never overload them.

**TIRES — GENERAL INFORMATION****Tire Pressure**

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. Three primary areas are affected by improper tire pressure:

**1. Safety—****WARNING!**

Improperly inflated tires are dangerous and can cause accidents.

- Under inflation increases tire flexing and can result in tire failure.
- Over inflation reduces a tire's ability to cushion shock. Objects on the road and chuck holes can cause damage that results in tire failure.
- Unequal tire pressures can cause steering problems. You could lose control of your vehicle.
- Overinflated or under inflated tires can affect vehicle handling and can fail suddenly, resulting in loss of vehicle control.
- Unequal tire pressures from one side of the vehicle to the other can cause the vehicle to drift to the right or left. Always drive with each tire properly inflated.

## 2. Economy—

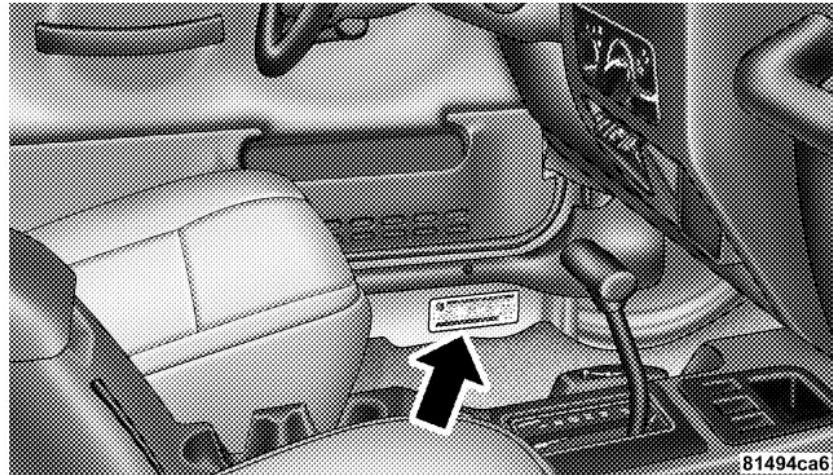
Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life resulting in a need for earlier tire replacement. Under inflation also increases tire rolling resistance and results in higher fuel consumption.

## 3. Ride Comfort and Vehicle Stability—

Proper tire inflation contributes to a comfortable ride. Over inflation produces a jarring and uncomfortable ride.

### Tire Inflation Pressures

The proper cold tire inflation pressures are listed on the lower front inside corner of the driver door opening.



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**Tire Placard Location**

The pressure should be checked and adjusted as well as inspecting for signs of tire wear or visible damage at least once a month. Use a good quality pocket-type gauge to check tire pressure. Do not make a visual judgement when determining proper inflation. Radial tires may look properly inflated even when they are under inflated.

**CAUTION!**

**After inspecting or adjusting the tire pressure always reinstall the valve stem cap—if equipped. This will prevent moisture and dirt from entering the valve stem, which could damage the valve stem.**

Inflation pressures specified on the placard are always “cold tire inflation pressure”. Cold tire inflation pressure is defined as the tire pressure after the vehicle has not been driven for at least 3 hours, or driven less than 1 mile (1 km) after a 3 hour period. The cold tire inflation pressure must not exceed the maximum inflation pressure molded into the tire side wall.

Check tire pressures more often if subject to a wide range of outdoor temperatures, as tire pressures vary with temperature changes.

Tire pressures change by approximately 1 psi (7 kPa) per  $12^{\circ}$  F ( $7^{\circ}$  C) of air temperature change. Keep this in mind when checking tire pressure inside a garage especially in the winter.

Example: If garage temperature =  $68^{\circ}$  F ( $20^{\circ}$  C) and the outside temperature =  $32^{\circ}$  F ( $0^{\circ}$  C) then the cold tire inflation pressure should be increased by 3 psi (21 kPa), which equals 1 psi (7 kPa) for every  $12^{\circ}$  F ( $7^{\circ}$  C) for this outside temperature condition.

Tire pressure may increase from 2 to 6 psi (13 to 40 kPa) during operation. DO NOT reduce this normal pressure build up or your tire pressure will be too low.

## Tire Pressures for High Speed Operation

The manufacturer advocates driving at safe speeds within posted speed limits. Where speed limits or conditions are such that the vehicle can be driven at high speeds, maintaining correct tire inflation pressure is very important. Increased tire pressure and reduced vehicle loading may be required for high speed vehicle operation. Refer to original equipment or an authorized tire dealer for recommended safe operating speeds, loading and cold tire inflation pressures.

### WARNING!

High speed driving with your vehicle under load is dangerous. The added strain on your tires could cause them to fail. You could have a serious accident. Don't drive a vehicle loaded to maximum capacity at continuous speeds above 75 mph (120 km/h).

## Radial-Ply Tires

### WARNING!

Combining radial ply tires with other types of tires on your vehicle will cause your vehicle to handle poorly. The instability could cause an accident. Always use radial tires in sets of four. Never combine them with other types of tires.

Cuts and punctures in radial tires are repairable only in the tread area because of sidewall flexing. Consult your authorized dealer for radial tire repairs.

## Tire Spinning

When stuck in mud, sand, snow, or ice conditions, do not spin your vehicle's wheels above 35 mph (55 km/h).

## WARNING!

Fast spinning tires can be dangerous. Forces generated by excessive wheel speeds may cause tire damage or failure. A tire could explode and injure someone. Do not spin your vehicle's wheels faster than 35 mph (55 km/h) when you are stuck, and do not let anyone near a spinning wheel no matter what the speed.

### Tread Wear Indicators

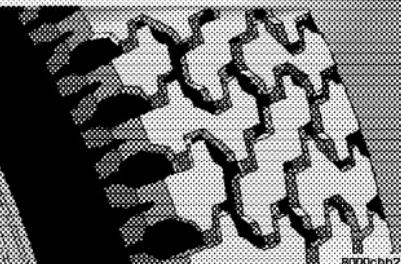
Tread wear indicators are in the original equipment tires to help you in determining when your tires should be replaced.

#### WORN TIRE

#### TIRE WEAR INDICATOR



#### NEW TIRE



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These indicators are molded into the bottom of the tread grooves and will appear as bands when the tread depth becomes  $1/16$  inch (2 mm). When the indicators appear in 2 or more adjacent grooves, the tire should be replaced.

Many states have laws requiring tire replacement at this point.

## Life of Tire

The service life of a tire is dependent upon varying factors including but not limited to:

- Driving style
- Tire pressure
- Distance driven

### WARNING!

Tires and spare tire should be replaced after six years, regardless of the remaining tread. Failure to follow this warning can result in sudden tire failure. You could lose control and have an accident resulting in serious injury or death.

Keep unmounted tires in a cool, dry place with as little exposure to light as possible. Protect tires from contact with oil, grease and gasoline.

## Replacement Tires

The tires on your new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct cold tire inflation pressure. The manufacturer strongly recommends that you use tires equivalent to the originals in size, quality and performance when replacement is needed (see the paragraph on tread wear indicators). Refer to the Tire and Loading Information placard for the size designation of your tire. The service description and load identification will be found on the original equipment tire. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your vehicle. We recommend that you contact your original equipment or an authorized tire dealer with any questions you may have on tire specifications or capability.

**WARNING!**

- Do not use a tire, wheel size or rating other than that specified for your vehicle. Some combinations of unapproved tires and wheels may change suspension dimensions and performance characteristics, resulting in changes to steering, handling, and braking of your vehicle. This can cause unpredictable handling and stress to steering and suspension components. You could lose control and have an accident resulting in serious injury or death. Use only the tire and wheel sizes with load ratings approved for your vehicle.
- Never use a tire with a smaller load index or capacity, other than what was originally equipped on your vehicle. Using a tire with a smaller load index could result in tire overloading and failure. You could lose control and have an accident.
- Failure to equip your vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.

**CAUTION!**

Replacing original tires with tires of a different size may result in false speedometer and odometer readings.

**Alignment and Balance**

Poor suspension alignment may result in:

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- Fast tire wear.
- Uneven tire wear, such as feathering and one-sided wear.
- Vehicle pull to right or left.

Tires may also cause the vehicle to pull left or right. Alignment will not correct this problem. See your authorized dealer for proper diagnosis.

Improper alignment will not cause vehicle vibration. Vibration may be a result of tire and wheel out-of-balance. Proper balancing will reduce vibration and avoid tire cupping and spotty wear.

## TIRE CHAINS

Install chains on rear tires only. Tire chains may be installed on all models except the Sahara and Rubicon. Follow these recommendations to guard against damage and excessive tire and chain wear:

- Use chains on P215/75R15 tires only. P225/75R15, LT30 x 9.50R15, and LT245/75R16 tires do not provide adequate clearance.
- Use SAE class "S" tire chains or traction devices only.

- Chains must be the proper size for the vehicle, as recommended by the chain manufacturer.
- Follow tire chain manufacturer's instructions for mounting chains.
- Install chains snugly and tighten after .6 mile (1 km) of driving.
- **Do not** exceed 30 mph (48 km/h).
- Drive cautiously, avoiding large bumps, potholes and extreme driving maneuvers.

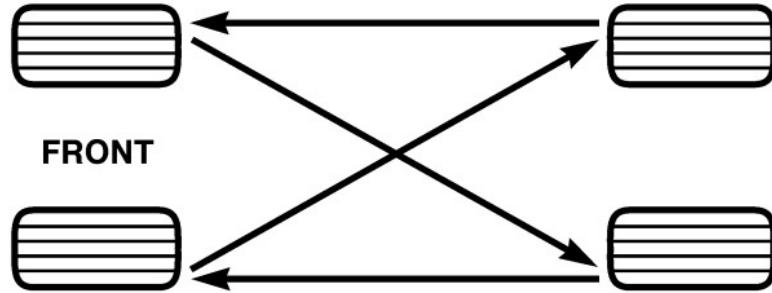
## TIRE ROTATION RECOMMENDATIONS

Tires on the front and rear axles of vehicles operate at different loads and perform different steering, handling, and braking functions. For these reasons, they wear at unequal rates, and develop irregular wear patterns.

These effects can be reduced by timely rotation of tires. The benefits of rotation are especially worthwhile with aggressive tread designs such as those on On/Off Road type tires. Rotation will increase tread life, help to maintain mud, snow, and wet traction levels, and contribute to a smooth, quiet ride.

Follow the recommended tire rotation frequency for your type of driving found in the "Maintenance Schedules" Section of this manual. More frequent rotation is permissible if desired. The reasons for any rapid or unusual wear should be corrected prior to rotation being performed.

The suggested rotation method is the "forward-cross" shown in the following diagram.



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## FUEL REQUIREMENTS



Your engine is designed to meet all emissions regulations and provide excellent fuel economy and performance when using high quality unleaded gasoline having an octane rating of 87. The use of premium gasoline is not recommended. The use of

premium gasoline will provide no benefit over high quality regular gasoline, and in some circumstances may result in poorer performance.

Light spark knock at low engine speeds is not harmful to your engine. However, continued heavy spark knock at high speeds can cause damage and immediate service is required.

Poor quality gasoline can cause problems such as hard starting, stalling and hesitations. If you experience these symptoms, try another brand of gasoline before considering service for the vehicle.

Over 40 auto manufacturer's world wide have issued and endorsed consistent gasoline specifications (the Worldwide Fuel Charter, WWFC) to define fuel properties necessary to deliver enhanced emissions, performance, and durability for your vehicle. The manufacturer recommends the use of gasoline that meets the WWFC specifications if they are available.

## Reformulated Gasoline

Many areas of the country require the use of cleaner burning gasoline referred to as Reformulated Gasoline. Reformulated gasoline contains oxygenates, and is specifically blended to reduce vehicle emissions and improve air quality.

The manufacturer strongly supports the use of reformulated gasoline. Properly blended reformulated gasoline will provide excellent performance and durability for the engine and fuel system components.

## Gasoline/Oxygenate Blends

Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol, MTBE, and ETBE. Oxygenates are required in some areas of the country during the winter months to reduce carbon monoxide emissions. Fuels blended with these oxygenates may be used in your vehicle.

**CAUTION!**

**DO NOT use gasoline containing METHANOL.**  
Gasoline containing methanol may damage critical  
fuel system components.

**MMT In Gasoline**

MMT is a manganese containing metallic additive that is blended into some gasoline to increase octane. Gasoline blended with MMT provides no performance advantage beyond gasoline of the same octane number without MMT. Gasoline blended with MMT reduces spark plug life and reduces emission system performance in some vehicles. The manufacturer recommends that gasoline without MMT be used in your vehicle. The MMT content of gasoline may not be indicated on the gasoline pump, therefore, you should ask your gasoline retailer whether or not his/her gasoline contains MMT.

It is even more important to look for gasoline without MMT in Canada because MMT can be used at levels higher than allowed in the United States. MMT is prohibited in Federal and California reformulated gasoline.

**Materials Added To Fuel**

All gasoline sold in the United States is required to contain effective detergent additives. Use of additional detergents or other additives is not needed under normal conditions.

## Fuel System Cautions

### CAUTION!

Follow these guidelines to maintain your vehicle's performance:

- The use of leaded gas is prohibited by Federal law. Using leaded gasoline can impair engine performance, damage the emission control system.
- An out-of-tune engine, or certain fuel or ignition malfunctions, can cause the catalytic converter to overheat. If you notice a pungent burning odor or some light smoke, your engine may be out of tune or malfunctioning and may require immediate service. Contact your dealer for service assistance.
- The use of fuel additives which are now being sold as octane enhancers is not recommended. Most of these products contain high concentrations of methanol.

Fuel system damage or vehicle performance problems resulting from the use of such fuels or additives is not the responsibility of the manufacturer.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

### Carbon Monoxide Warnings

### WARNING!

Carbon monoxide (CO) in exhaust gases is deadly. Follow the precautions below to prevent carbon monoxide poisoning:

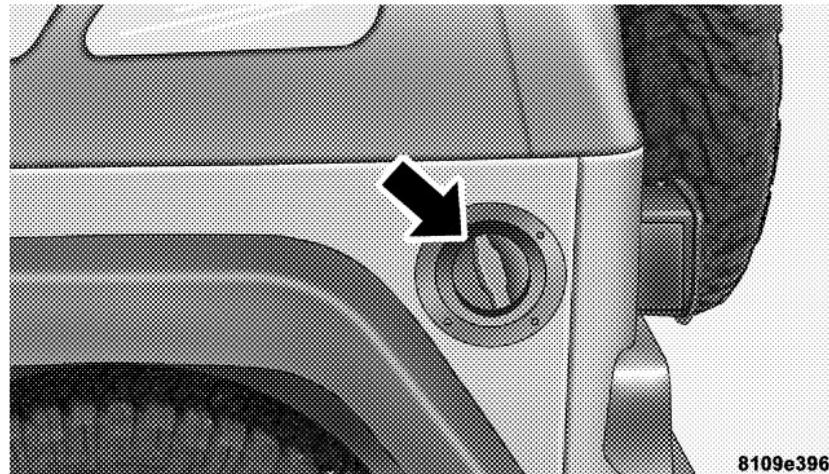
- Do not inhale exhaust gases. They contain carbon monoxide, a colorless and odorless gas which can kill. Never run the engine in a closed area, such as a garage, and never sit in a parked vehicle with the

engine running for an extended period. If the vehicle is stopped in an open area with the engine running for more than a short period, adjust the ventilation system to force fresh, outside air into the vehicle.

- Guard against carbon monoxide with proper maintenance. Have the exhaust system inspected every time the vehicle is raised. Have any abnormal conditions repaired promptly. Until repaired, drive with all side windows fully open.
- Keep the swing gate closed when driving your vehicle to prevent carbon monoxide and other poisonous exhaust gases from entering the vehicle.

## FUEL FILLER CAP (GAS CAP)

The fuel cap is located on the left side of the vehicle. If the fuel cap is lost or damaged, be sure the replacement cap is for use with this vehicle.



Fuel Filler Cap Location

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**CAUTION!**

Damage to the fuel system or emission control system could result from using an improper fuel cap (gas cap). A poorly fitting cap could let impurities into the fuel system. Also, a poorly fitting after-market cap can cause the MIL (Malfunction Indicator Light) to illuminate, due to fuel vapors escaping from the system.

- Make sure that the fuel cap tether strap is not caught under the fuel cap.

**CAUTION!**

To avoid fuel spillage and overfilling, do not "top off" the fuel tank after filling.

**NOTE:** When the fuel nozzle "clicks" or shuts off, the fuel tank is full.

- Turn the engine off.
- Rotate the fuel cap to the left to remove.
- To replace the cap, insert it into the filler neck and tighten the cap about 1/4 turn until you hear two clicks. This is an indication that the cap is properly tightened.

**WARNING!**

- Remove the fuel cap (gas cap) slowly to prevent fuel spray from the filler neck which may cause injury.
- The volatility of some gasoline may cause a buildup of pressure in the fuel tank that may increase while you drive. This pressure can result in a spray of gasoline and/or vapors when the cap is removed from a hot vehicle. Removing the cap slowly allows the pressure to vent and prevents fuel spray.
- Never have any smoking materials lit in or near the vehicle when the fuel cap is removed or the tank filled.
- Never add fuel to the vehicle when the engine is running.

**WARNING!**

A fire may result if gasoline is pumped into a portable container that is inside of a vehicle. You could be burned. Always place gas containers on the ground while filling.

**Locking Fuel Filler Cap (Gas Cap) — If Equipped**

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- Turn the engine off.
- Insert the ignition key into the fuel cap, and turn the key to the right to unlock the fuel cap. Rotate the fuel cap to the left to remove.
- To replace the cap, insert it into the filler neck and tighten the cap about 1/4 turn until you hear two clicks. This is an indication that the cap is properly tightened.

- Make sure that the fuel cap tether strap is not caught under the fuel cap.
- Be sure to remove the key.

**CAUTION!**

To avoid fuel spillage and overfilling, do not "top off" the fuel tank after filling.

**NOTE:** When the fuel nozzle "clicks" or shuts off, the fuel tank is full.

**TRAILER TOWING**

In this section you will find safety tips and information on limits to the type of towing you can reasonably do with your vehicle. Before towing a trailer carefully review this information to tow your load as efficiently and safely as possible.

To maintain warranty coverage, follow the requirements and recommendations in this manual concerning vehicles used for trailer towing.

**Common Towing Definitions**

The following trailer towing related definitions will assist you in understanding the following information:

**Gross Vehicle Weight Rating (GVWR)**

The GVWR is the total allowable weight of your vehicle. This includes driver, passengers, cargo and tongue weight. The total load must be limited so that you do not exceed the GVWR.

### Gross Trailer Weight (GTW)

The gross trailer weight (GTW) is the weight of the trailer plus the weight of all cargo, consumables and equipment (permanent or temporary) loaded in or on the trailer in its "loaded and ready for operation" condition. The recommended way to measure GTW is to put your fully loaded trailer on a vehicle scale. The entire weight of the trailer must be supported by the scale.

### Gross Combination Weight Rating (GCWR)

The gross combination weight rating (GCWR) is the total permissible weight of your vehicle and trailer when weighed in combination. (Note that GCWR ratings include a 150 lbs (68 kg) allowance for the presence of a driver).

### Gross Axle Weight Rating (GAWR)

The GAWR is the maximum capacity of the front and rear axles. Distribute the load over the front and rear axles evenly. Make sure that you do not exceed either front or rear GAWR.

#### WARNING!

**It is important that you do not exceed the maximum front or rear GAWR. A dangerous driving condition can result if either rating is exceeded. You could lose control of the vehicle and have an accident.**

### Tongue Weight (TW)

The downward force exerted on the hitch ball by the trailer. In most cases it should not be less than 10% or more than 15% of the trailer load. You must consider this as part of the load on your vehicle.

## Frontal Area

The maximum height and maximum width of the front of a trailer.

## Trailer Sway Control

The trailer sway control is a telescoping link that can be installed between the hitch receiver and the trailer tongue that typically provides adjustable friction associated with the telescoping motion to dampen any unwanted trailer swaying motions while traveling.

## Weight-Carrying Hitch

A weight-carrying hitch supports the trailer tongue weight, just as if it were luggage located at a hitch ball or some other connecting point of the vehicle. These kind of hitches are the most popular on the market today and they're commonly used to tow small- and medium-sized trailers.

## Weight-Distributing Hitch

A weight-distributing hitch includes a receiver attached to the tow vehicle, plus a removable hitch head and spring bar assembly that fits into the receiver opening and hook up brackets that connect the spring bars to the trailer frame.

## Trailer Hitch Classification

The rear bumper is intended to tow trailers up to 2,000 lbs (907 kg) without added equipment or alterations to the standard equipment. Your vehicle may be factory equipped for safe towing of trailers weighing over 2,000 lbs (907 kg) with the optional Trailer Tow Prep Package. See your dealer for package content.

The following chart provides the industry standard for the maximum trailer weight a given trailer hitch class can tow and should be used to assist you in selecting the correct trailer hitch for your intended towing condition.

Refer to the Trailer Towing Weights (Maximum Trailer Weight Ratings) chart for the Max. GTW towable for your given drivetrain.

| <b>Trailer Hitch Classification</b> |                                     |
|-------------------------------------|-------------------------------------|
| <b>Class</b>                        | <b>Max. GTW (Gross Trailer Wt.)</b> |
| Class I - Light Duty                | 2,000 lbs (907 kg)                  |
| Class II - Medium Duty              | 3,500 lbs (1 587 kg)                |
| Class III - Heavy Duty              | 5,000 lbs (2 268 kg)                |
| Class IV - Extra Heavy Duty         | 10,000 lbs (4 540 kg)               |

All trailer hitches should be professionally installed on your vehicle.

## **Trailer Towing Weights (Maximum Trailer Weight Ratings)**

The following chart provides the maximum trailer weight ratings towable for your given drivetrain.

| Engine/<br>Transmis-<br>sion                           | Model          | GVWR (Gross<br>Vehicle Wt. Rat-<br>ing) | GCWR (Gross<br>Combined Wt.<br>Rating) | Frontal Area                          | Max. GTW<br>(Gross Trailer<br>Wt.) | Max. Tongue<br>Wt. (See Note<br>1) |
|--|----------------|---|--|---------------------------------------|------------------------------------|------------------------------------|
| 2.4L/<br>Manual  |                | 4,350 lbs (1 973<br>kg)                 | 5,350 lbs (2 427<br>kg)                | 25 Sq. Ft.<br>(2.32 square<br>meters) | 1,000 lbs (453<br>kg)              | 100 lbs (45 kg)                    |
| 4.0L/All   |                | 4,250 lbs (1 928<br>kg)                 | 6,250 lbs (2 835<br>kg)                | 25 Sq. Ft.<br>(2.32 square<br>meters) | 2,000 lbs (907<br>kg)              | 200 lbs (91 kg)                    |
| 4.0L/<br>Automatic                                     | Unlim-<br>ited | 4,600 lbs (2 086<br>kg)                 | 8,100 lbs (3 674<br>kg)                | 32 Sq. Ft.<br>(2.97 square<br>meters) | 3,500 lbs (1 587<br>kg)            | 350 lbs (159<br>kg)                |
| Refer to local laws for maximum trailer towing speeds. |                |   |  |                                       |                                    |                                    |

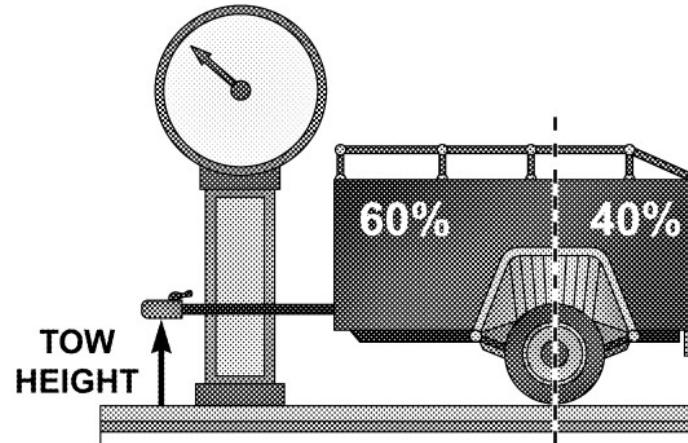
Note 1 – The trailer tongue weight must be considered as part of the combined weight of occupants and cargo, and should never exceed the weight referenced on the Tire and Loading Information placard. Refer to the Tire-Safety Information Section in this manual.

### Trailer and Tongue Weight

Always load a trailer with 60% to 65% of the weight in the front of the trailer. This places 10% to 15% of the Gross Trailer Weight (GTW) on the tow hitch of your vehicle. Loads balanced over the wheels or heavier in the rear can cause the trailer to sway **severely** side to side.

which will cause loss of control of vehicle and trailer. Failure to load trailers heavier in front is the cause of many trailer accidents.

Never exceed the maximum tongue weight stamped on your bumper or trailer hitch.



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Consider the following items when computing the weight on the rear axle of the vehicle:

- The tongue weight of the trailer.
- The weight of any other type of cargo or equipment put in or on your vehicle.
- The weight of the driver and all passengers.

**NOTE:** Remember that everything put into or on the trailer adds to the load on your vehicle. Also, additional factory-installed options, or dealer-installed options, must be considered as part of the total load on your vehicle. Refer to the Tire and Loading Information placard in the Tire Safety Information Section of this manual for the maximum combined weight of occupants and cargo for your vehicle.

## Towing Requirements

To promote proper break-in of your new vehicle drivetrain components the following guidelines are recommended:

**NOTE:** Trailer towing requires special rear axle lubricant. Refer to "Fluids, Lubricants, and Genuine Parts" in Section 7 for more information.

### CAUTION!

- Avoid towing a trailer for the first 500 miles (805 km) of vehicle operation. Doing so may damage your vehicle.
- During the first 500 miles (805 km) of trailer towing, limit your speed to 50 mph (80 km/h).

Perform the maintenance listed in Section 8 of this manual. When towing a trailer, never exceed the GAWR, or GCWR, ratings.

### WARNING!

Improper towing can lead to an injury accident. Follow these guidelines to make your trailer towing as safe as possible:

Make certain that the load is secured in the trailer and will not shift during travel. When trailering cargo that is not fully secured, dynamic load shifts can occur that may be difficult for the driver to control. You could lose control of your vehicle and have an accident.

- When hauling cargo or towing a trailer, do not overload your vehicle or trailer. Overloading can cause a loss of control, poor performance or damage to brakes, axle, engine, transmission, steering, suspension, chassis structure or tires.

- Safety chains must always be used between your vehicle and trailer. Always connect the chains to the frame or hook retainers of the vehicle hitch. Cross the chains under the trailer tongue and allow enough slack for turning corners.
  - Vehicles with trailers should not be parked on a grade. When parking, apply the parking brake on the tow vehicle. Put the tow vehicle automatic transmission in P for Park. With a manual transmission, shift the transmission into reverse. And with four-wheel-drive vehicles, make sure the transfer case is not in neutral. Always, block or "chock" the trailer wheels.
- GCWR must not be exceeded.
  - **Total weight must be distributed between the tow vehicle and the trailer such that the following four ratings are not exceeded:**
    1. GVWR
    2. GTW
    3. GAWR
    4. Tongue weight rating for the trailer hitch utilized (This requirement may limit the ability to always achieve the 10% to 15% range of tongue weight as a percentage of total trailer weight).

## Towing Requirements — Tires

- Do not attempt to tow a trailer while using a compact spare tire.
- Proper tire inflation pressures are essential to the safe and satisfactory operation of your vehicle. Refer to the Tires—General Information section of this manual on Tire Pressures for proper tire inflation procedures.
- Also, check the trailer tires for proper tire inflation pressures before trailer usage.
- Check for signs of tire wear or visible tire damage before towing a trailer. Refer to the Tires—General Information section of this manual on Tread Wear Indicators for the proper inspection procedure.
- When replacing tires refer to the Tires—General Information section of this manual on Replacement Tires for

proper tire replacement procedures. Replacing tires with a higher load carrying capacity will not increase the vehicle's GVWR and GAWR limits.

## Towing Requirements — Trailer Brakes

- Do **not** interconnect the hydraulic brake system or vacuum system of your vehicle with that of the trailer. This could cause inadequate braking and possible personal injury.
- An electronically actuated trailer brake controller is required when towing a trailer with electronically actuated brakes. When towing a trailer equipped with a hydraulic surge actuated brake system, an electronic brake controller is not required.
- Trailer brakes are recommended for trailers over 1,000 lbs (454 kg) and required for trailers in excess of 2,000 lbs (907 kg).

**CAUTION!**

If the trailer weighs more than 1,000 lbs (454 kg) loaded, it should have its own brakes and they should be of adequate capacity. Failure to do this could lead to accelerated brake lining wear, higher brake pedal effort, and longer stopping distances.

**WARNING!**

Do not connect trailer brakes to your vehicle's hydraulic brake lines. It can overload your brake system and cause it to fail. You might not have brakes when you need them and could have an accident. Towing any trailer will increase your stopping distance. When towing you should allow for additional space between your vehicle and the vehicle in front of you. Failure to do so could result in an accident.

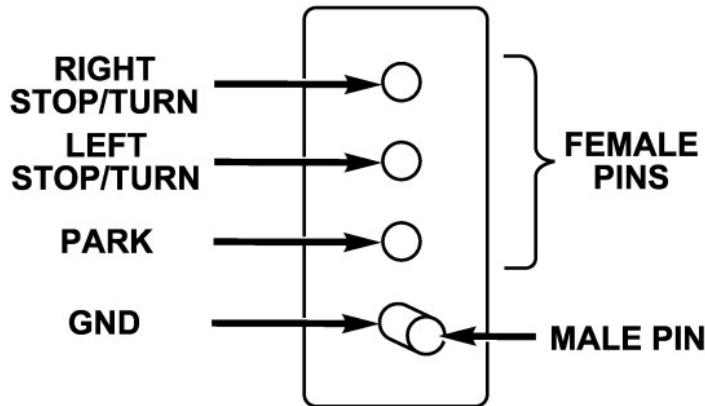
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**Towing Requirements — Trailer Lights & Wiring**  
Whenever you pull a trailer, regardless of the trailer size, stop lights and turn signals on the trailer are required for motoring safety.

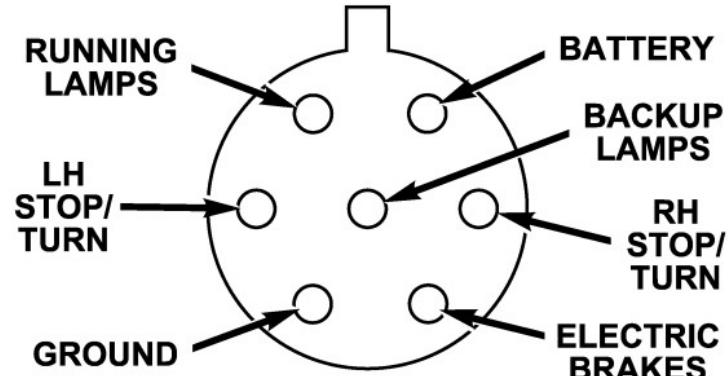
The Trailer Tow Package may include a 4 and 7 pin wiring harness. Use a factory approved trailer harness and connector.

**NOTE:** Do not cut or splice wiring into the vehicles wiring harness.

The electrical connections are all complete to the vehicle but you must mate the harness to a trailer connector. Refer to the following illustrations.



4 - Pin Connector



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7- Pin Connector

### Towing Tips

Before setting out on a trip, practice turning, stopping and backing the trailer in an area away from heavy traffic.

If using a manual transmission vehicle for trailer towing, all starts must be in FIRST gear to avoid excessive clutch slippage.

### Towing Tips — Automatic Transmission

The "D" range can be selected when towing. However, if frequent shifting occurs while in this range, the "3" range should be selected.

**NOTE:** Using the "3" range while operating the vehicle under heavy operating conditions will improve performance and extend transmission life by reducing excessive shifting and heat build up. This action will also provide better engine braking.

The automatic transmission fluid and filter should be changed if you REGULARLY tow a trailer for more than 45 minutes of continuous operation. See "Schedule B" in section 8 of this manual for transmission fluid change intervals.

**NOTE:** Check the automatic transmission fluid level before towing.

### Towing Tips — O/D Off (If Equipped)

To reduce potential for automatic transmission overheating, turn the "O/D OFF" feature ON when driving in hilly areas or shift the transmission to Drive position 2 on more severe grades. Refer to "Transmission Shifting" in this section.

### Towing Tips — Electronic Speed Control (If Equipped)

- Don't use in hilly terrain or with heavy loads.
- When using the speed control, if you experience speed drops greater than 10 mph (16 km/h), disengage until you can get back to cruising speed.
- Use speed control in flat terrain and with light loads to maximize fuel efficiency.

## Towing Tips — Cooling System

To reduce potential for engine and transmission overheating, take the following actions:

- City Driving***

When stopped for short periods of time, put transmission in neutral and increase engine idle speed.

- Highway Driving***

Reduce speed.

- Air Conditioning***

Turn off temporarily.

- refer to Cooling System Operating information in the Maintenance section of this manual for more information.***

## RECREATIONAL TOWING (BEHIND MOTORHOME, ETC.)

### **CAUTION!**

Front or rear wheel lifts should not be used. Internal damage to the transmission or transfer case will occur if a front or rear wheel lift is used when recreational towing.

**NOTE:** The transfer case must be shifted into N (Neutral) for recreational towing.

### **Shifting Into Neutral (N)**

Use the following procedure to prepare your vehicle for recreational towing.

**CAUTION!**

It is necessary to follow these steps to be certain that the transfer case is fully in N (Neutral) before recreational towing to prevent damage to internal parts.

1. Depress brake pedal.
2. Shift automatic transmission into N (Neutral) or depress clutch pedal on manual transmission.
3. Shift transfer case lever into N (Neutral).
4. Start engine.
5. Shift automatic transmission into D (Drive) or manual transmission into gear.
6. Release brake pedal and ensure that there is no vehicle movement.

7. Shut the engine off and place the ignition key into the unlocked OFF position.
8. Shift automatic transmission into P (Park).
9. Apply parking brake.
10. Attach vehicle to the tow vehicle with tow bar.
11. Release parking brake.

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**CAUTION!**

Damage to the transmission may occur if the transmission is shifted into P (Park) with the transfer case in N (Neutral) and the engine running. With the transfer case in N (Neutral) ensure that the engine is off prior to shifting the transmission into P (Park) (refer to steps 7 – 8 above).

## Shifting Out Of Neutral (N)

Use the following procedure to prepare your vehicle for normal usage.

1. Shift automatic transmission into N (Neutral) or depress clutch pedal on manual transmission.
2. Shift transfer case lever into desired position.
3. Shift automatic transmission into D (Drive) or release clutch on manual transmissions.

**NOTE:** When shifting out of transfer case N (Neutral) on automatic transmission equipped vehicles, turning the engine off may be required to avoid gear clash.

### WARNING!

You or others could be injured if you leave the vehicle unattended with the transfer case in the N (Neutral) position without first fully engaging the parking brake. The transfer case N (Neutral) position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move despite the transmission position. The parking brake should always be applied when the driver is not in the vehicle.

### CAUTION!

- Do not use a bumper mounted clamp-on tow bar on your vehicle. The bumper face bar will be damaged.

# WHAT TO DO IN EMERGENCIES

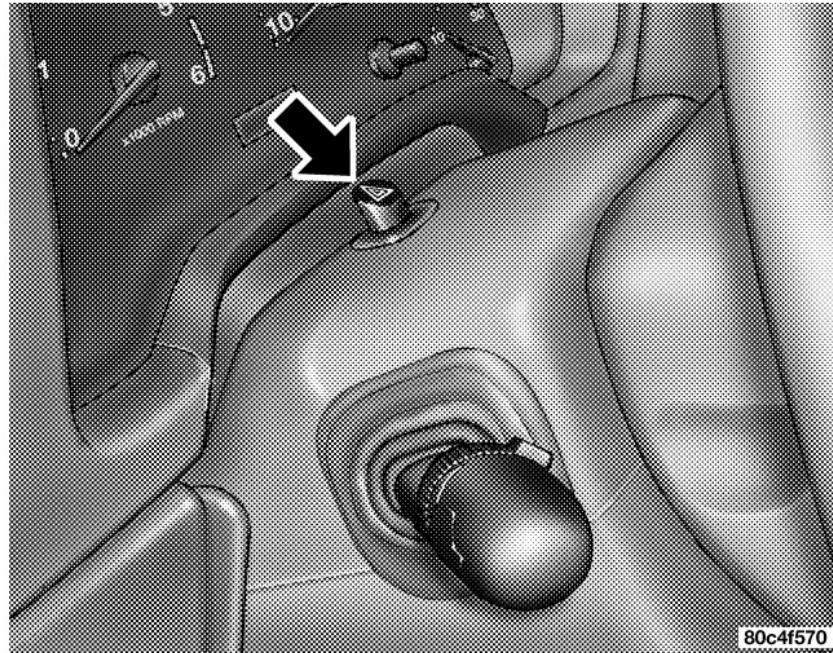
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## HAZARD WARNING FLASHER

The flasher switch is on top of the steering column, just behind the steering wheel. Depress the switch and both cluster indicators and all front and rear directional signals will flash. Depress the switch again to turn Hazard Warning Flashers off.



Hazard Flasher Switch

Do not use this emergency warning system when the vehicle is in motion. Use it when your vehicle is disabled and is creating a safety hazard for other motorists.

If it is necessary to leave the vehicle to go for service, the flasher system will continue to operate with the ignition key removed and the vehicle locked.

**NOTE:** With extended use, the flasher may wear down your battery.

## IF YOUR ENGINE OVERHEATS

In any of the following situations, you can reduce the potential for overheating by taking the appropriate action.

- On the highways — Slow down.

- In city traffic — While stopped, put transmission in N (Neutral), but do not increase engine idle speed.

**NOTE:** There are steps that you can take to slow down an impending overheat condition. If your air conditioner is on, turn it off. The air conditioning system adds heat to the engine cooling system and turning off the A/C removes this heat. You can also turn the Temperature Control to maximum heat, the Mode Control to floor, and the Fan Control to High. This allows the heater core to act as a supplement to the radiator and aids in removing heat from the engine cooling system.

**CAUTION!**

Driving with a hot cooling system could damage your vehicle. If the temperature gauge reads "H", pull over and stop the vehicle. Idle the vehicle with the air conditioner turned off until the pointer drops back into the normal range. If the pointer remains on the "H", and you hear continuous chimes, turn the engine off immediately, and call for service.

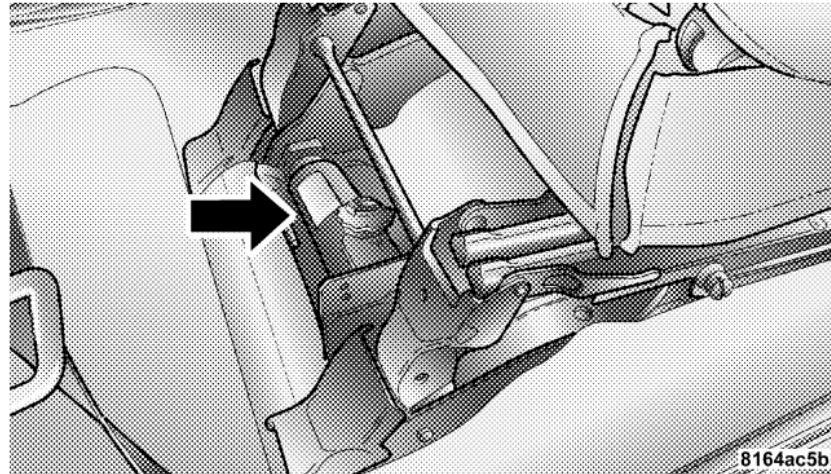
**JACKING AND TIRE CHANGING****WARNING!**

- Getting under a jacked-up vehicle is dangerous. The vehicle could slip off the jack and fall on you. You could be crushed. Never get any part of your body under a vehicle that is on a jack. If you need to get under a raised vehicle, take it to a service center where it can be raised on a lift.
- The jack is designed to use as a tool for changing tires only. The jack should not be used to lift the vehicle for service purposes. The vehicle should be jacked on a firm level surface only. Avoid ice or slippery areas.

## Jack Location

The jack and lug wrench are stored under the front passenger seat. The jack handle driver and jack extension are located in a kit that is stored on the floor board to the right of the front passenger seat. On some models, this tool kit is under the carpeting in the same location.

To remove the jack from its stowage position, turn the thumb screw counterclockwise to loosen jack, and then remove it from the bracket.



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## Jack Storage Location

### Spare Tire Stowage

To remove the spare tire from the carrier, remove the tire cover, if equipped, and remove the lug nuts with the lug wrench turning them counterclockwise.

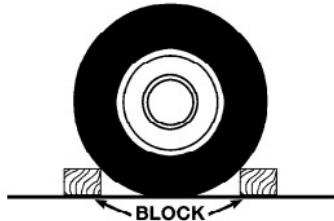
**NOTE:** If you have added aftermarket accessories to the spare tire mounted carrier, it cannot exceed a gross weight of 50 lbs (23 kg) including the weight of the spare tire.

### Preparations For Jacking

Park on a firm level surface, avoid ice or slippery areas, set the parking brake and place automatic transmission in P (Park), or manual transmission in R (Reverse). Turn OFF the ignition.

#### WARNING!

**Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to avoid being hit when operating the jack or changing the wheel.**



- Block both the front and rear of the wheel diagonally opposite of the jacking position. For example, if changing the right front tire, block the left rear wheel.

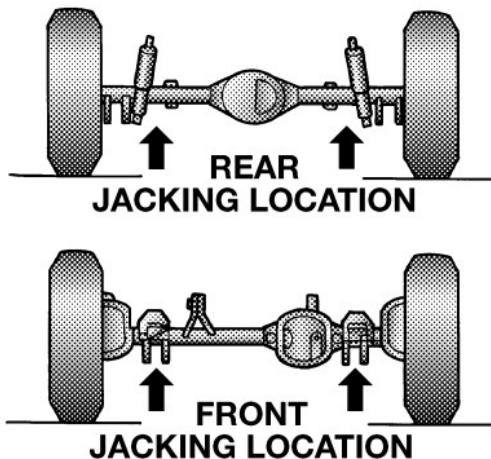
- Passengers should not remain in the vehicle when the vehicle is being jacked.

### Jacking Instructions

1. Remove spare tire, jack and tools from stored location.
2. Loosen (but do not remove) the wheel lug nuts by turning them to the left one turn while the wheel is still on the ground.
3. Assemble the jack and jacking tools. Connect jack handle driver to extension, then to lug wrench.

- Turn on the Hazard Warning Flasher.

4. Operate jack from the front or the rear of the vehicle. Place the jack under the axle tube, as shown. **Do not raise the vehicle until you are sure the jack is fully engaged.**



### Jacking Locations

5. Raise the vehicle by turning the jack screw to the right. Raise the vehicle only until the tire just clears the surface

and enough clearance is obtained to install the spare tire. Minimum tire lift provides maximum stability.

### WARNING!

Raising the vehicle higher than necessary can make the vehicle less stable and cause an accident. It could slip off the jack and hurt someone near it. Raise the vehicle only enough to remove the tire.

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6. Remove the lug nuts and wheel.
7. Position spare wheel/tire on vehicle and install lug nuts with cone-shaped end toward wheel. Lightly tighten nuts clockwise. To avoid the risk of forcing the vehicle off the jack, do not tighten the nuts fully until the vehicle has been lowered.
8. Lower the vehicle by turning the jack screw to the left, and remove the jack and wheel blocks.

9. Finish tightening the lug nuts. Push down on the wrench while tightening for increased leverage. Alternate nuts until each nut has been tightened twice. Correct wheel nut tightness is 130 N·m (95 ft. lbs). If in doubt about the correct tightness, have them checked with a torque wrench by your authorized dealer or at a service station.
10. Remove jack assembly and wheel blocks.

**WARNING!**

A loose tire or jack, thrown forward in a collision or hard stop could endanger the occupants of the vehicle. Always stow the jack parts and the spare tire in the places provided.

11. Secure the tire, jack, and tools in their proper locations.

**JUMP STARTING****WARNING!**

To prevent personal injury or damage to clothing, do not allow battery fluid to contact eyes, skin, or fabrics. Do not lean over a battery when connecting jumper cables or allow cable clamps to touch each other. Keep open flames or sparks away from battery vent holes. Always wear eye protection when working with batteries. Do not use a booster battery or any other booster source that has a greater than 12-volt system, i.e. do not use a 24-volt power source.

Your vehicle is equipped with a 12-volt battery. If it becomes necessary to use a booster battery, with jumper cables, to start the vehicle's engine because it's battery is discharged, the following procedure should be followed:

Set the parking brake, place an automatic transmission in P (Park) (or N (Neutral) for a manual transmission). Turn off lights, heater, and other electrical loads. Observe charge indicator in the battery. If indicator is light or yellow, replace the battery.

### CAUTION!

Use the "Jump Starting" procedure only when the charge indicator is dark in the center. Do not attempt jump starting when the battery charge indicator is bright or yellow. If the charge indicator is dark and has a green dot in the center, failure to start is not due to a discharged battery and the cranking system should be checked.

1. Attach one end of the jumper cable to the positive terminal of the discharged battery and the other end of the same cable to the positive terminal of the booster battery.

### WARNING!

Do not permit vehicles to touch each other as this could establish a ground connection and personal injury could result.

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2. Connect one end of the other jumper cable to the negative terminal of the booster battery. Connect the other end of the jumper cable to a good ground on the vehicle with the discharged battery. Make sure a good connection is made, free of dirt and grease.

**WARNING!**

- **Do not connect the cable to the negative terminal of the discharged battery. The resulting electrical spark could cause the battery to explode.**
- **During cold weather when temperatures are below freezing point, electrolyte in a discharged battery may freeze. Do not attempt jump starting because the battery could rupture or explode. The battery temperature must be brought up above freezing point before attempting to jump start.**

3. Take care that the clamps from one cable do not touch clamps from the other cable. Do not lean over the battery when making the connection. The negative connection must provide good electrical conductivity and current carrying capacity.
4. After the engine is started or if the engine fails to start, the cables must be disconnected in the following order:
  - a. Disconnect the negative cable at the engine ground.
  - b. Disconnect the negative cable at the negative terminal on the booster battery.
  - c. Disconnect the cable from the positive terminals of both batteries.

**WARNING!**

Any procedure other than above could result in:

- Personal injury caused by electrolyte squirting out the battery vent.
- Personal injury or property damage due to battery explosion.
- Damage to charging system of booster vehicle or of immobilized vehicle.

**TOWING A DISABLED VEHICLE**

The manufacturer recommends towing with all four wheels off the ground. Acceptable methods are to tow the vehicle on a flatbed or with one end of the vehicle raised and the other end on a towing dolly.



Information Provided by:  
**DEALER**  
e-PROCESS

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# MAINTAINING YOUR VEHICLE

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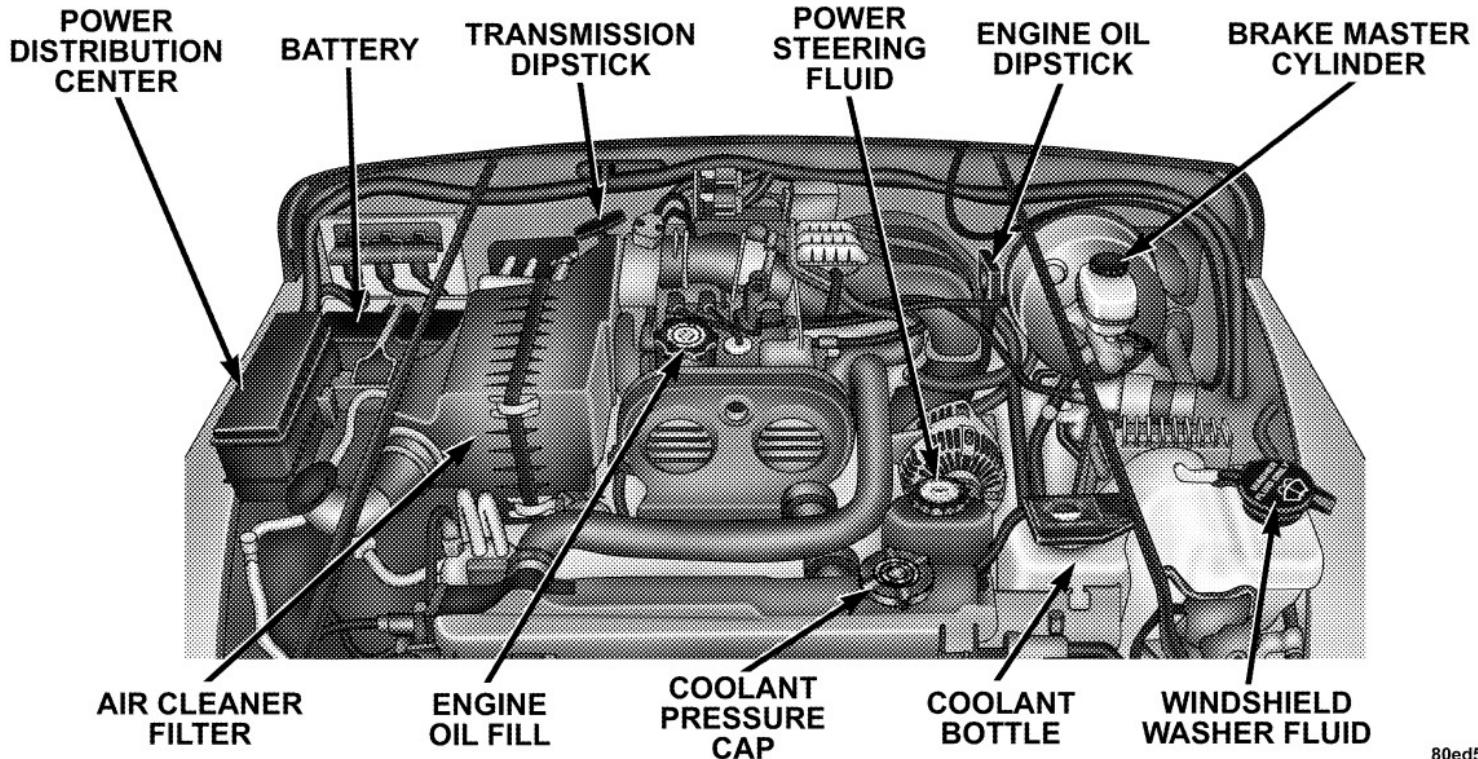
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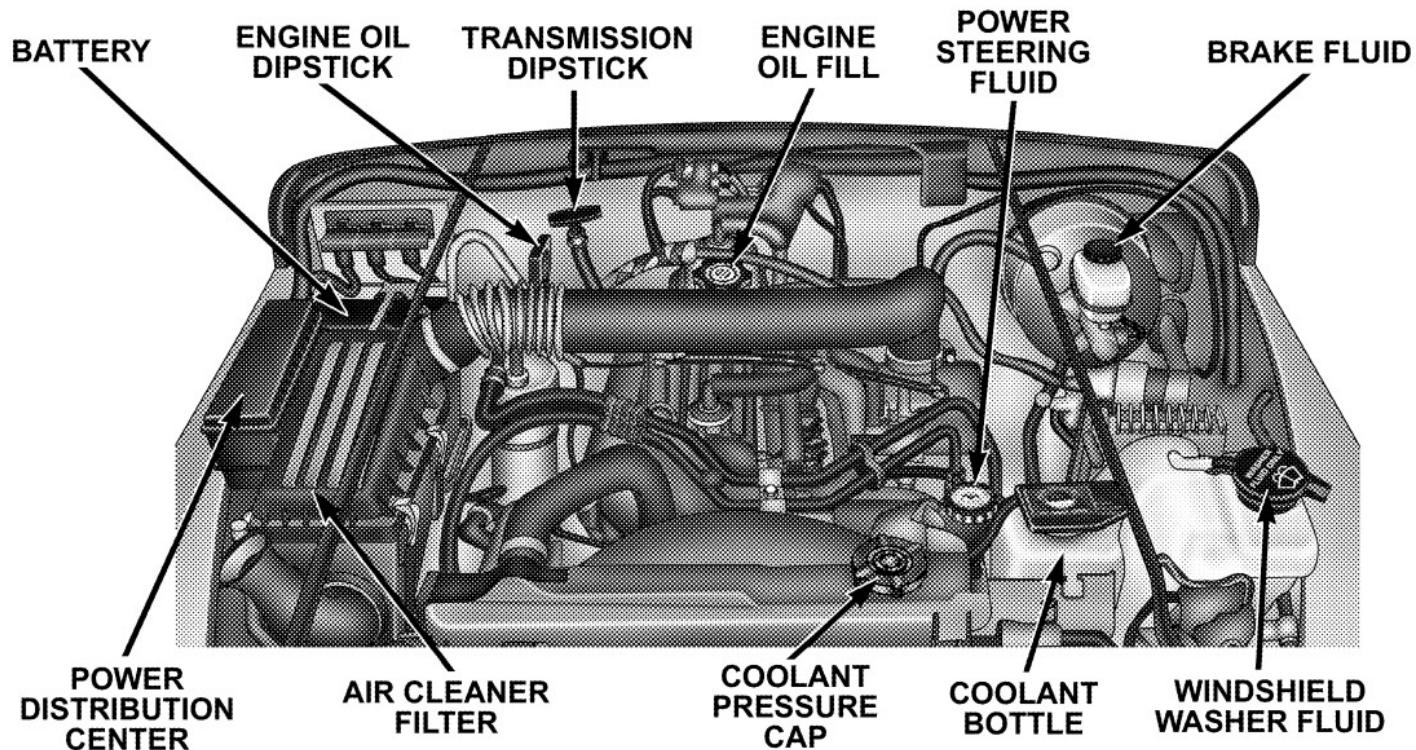
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## 2.4L ENGINE



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## 4.0L ENGINE



## ONBOARD DIAGNOSTIC SYSTEM — OBD II

Your vehicle is equipped with a sophisticated onboard diagnostic system called OBD II. This system monitors the performance of the emissions, engine, and automatic transmission control systems. When these systems are operating properly, your vehicle will provide excellent performance and fuel economy, as well as engine emissions well within current government regulations.

If any of these systems require service, the OBD II system will turn on the "Malfunction Indicator Light." It will also store diagnostic codes and other information to assist your service technician in making repairs. Although your vehicle will usually be drivable and not need towing, see your dealer for service as soon as possible.

### CAUTION!

- Prolonged driving with the "Malfunction Indicator Light" on could cause further damage to the emission control system. It could also affect fuel economy and driveability. The vehicle must be serviced before any emissions tests can be performed.
- If the "Malfunction Indicator Light" is flashing while the engine is running, severe catalytic converter damage and power loss will soon occur. Immediate service is required.

## EMISSIONS INSPECTION AND MAINTENANCE PROGRAMS

In some localities, it may be a legal requirement to pass an inspection of your vehicle's emissions control system. Failure to pass could prevent vehicle registration.

 For states which have an I/M (Inspection and Maintenance) requirement, this check verifies the following: the MIL (Malfunction Indicator Lamp) is functioning and is not on when the engine is running, and that the OBD (On Board Diagnostic) system is ready for testing.

Normally, the OBD system will be ready. The OBD system **may not** be ready if your vehicle was recently serviced, if you recently had a dead battery, or a battery replacement. If the OBD system should be determined not ready for the I/M test, your vehicle may fail the test.

Your vehicle has a simple ignition key actuated test which you can use prior to going to the test station. To check if your vehicle's OBD system is ready, you must do the following:

1. Insert your ignition key into the ignition switch.
2. Turn the ignition to the ON position, but do not crank or start the engine.
3. If you crank or start the engine, you will have to start this test over.
4. As soon as you turn your key to the ON position, you will see your MIL symbol come on as part of a normal bulb check.
5. Approximately 15 seconds later, one of two things will happen:
  - a. The MIL will flash for about 10 seconds and then return to being fully illuminated until you turn off the

ignition key or start the engine. This means that your vehicle's OBD system is **not ready** and you should **not** proceed to the I/M station.

b. The MIL will not flash at all and will remain fully illuminated until you turn off the ignition key or start the engine. This means that your vehicle's OBD system is **ready** and you can proceed to the I/M station.

If your OBD system is **not ready**, you should see your authorized dealer or repair facility. If your vehicle was recently serviced or had a battery failure or replacement, you may need to do nothing more than drive your vehicle as you normally would in order for your OBD system to update. A recheck with the above test routine may then indicate that the system is now ready.

Regardless of whether your vehicle's OBD system is ready or not ready, if the MIL symbol is illuminated during normal vehicle operation, you should have your

vehicle serviced before going to the I/M station. The I/M station can fail your vehicle because the MIL symbol is on with the engine running.

## REPLACEMENT PARTS

Use of genuine Mopar® parts for normal/scheduled maintenance and repairs is highly recommended to insure the designed performance. Damage or failures caused by the use of non-Mopar® parts for maintenance and repairs will not be covered by the manufacturer's warranty.

## DEALER SERVICE

Your dealer has the qualified service personnel, special tools and equipment to perform all service operations in an expert manner. Service Manuals are available which include detailed service information for your vehicle. Refer to these manuals before attempting any procedure yourself.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

## WARNING!

You can be badly injured working on or around a motor vehicle. Do only that service work for which you have the knowledge and the proper equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.

## MAINTENANCE PROCEDURES

The pages that follow contain the **required** maintenance services determined by the engineers who designed your vehicle.

Besides the maintenance items for which there are fixed maintenance intervals, there are other items that should operate satisfactorily without periodic maintenance. However, if a malfunction of these items does occur, it could adversely affect the engine or vehicle performance. These items should be inspected if a malfunction is observed or suspected.

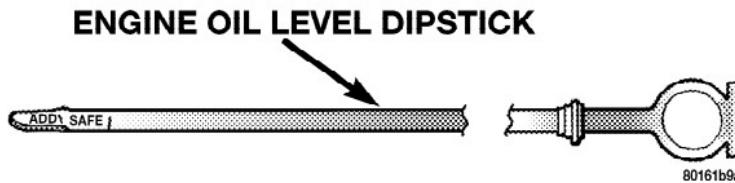
### Engine Oil

#### Checking Oil Level

To assure proper lubrication of your vehicle's engine, the engine oil must be maintained at the correct level. Check the oil level at regular intervals, such as every fuel stop.

The best time to check the engine oil level is about 5 minutes after a fully warmed engine is shut off, or before starting the engine after it has sat overnight.

Checking the oil while the vehicle is on level ground will improve the accuracy of the oil level readings. Maintain the oil level between the ADD and SAFE markings on the dipstick. Adding 1 U.S. Quart (0.95L) of oil when the reading is at the ADD mark will result in a SAFE reading on these engines.



## CAUTION!

Overfilling or underfilling the crankcase will cause aeration or loss of oil pressure. This could damage your engine.

### Change Engine Oil

Road conditions as well as your kind of driving affect the interval at which your oil should be changed. Check the following to determine if any apply to you:

- Day or night temperatures are below 32°F (0°C)
- Stop and go driving
- Extensive engine idling
- Driving in dusty conditions
- Short trip driving of less than 10 miles (16.2 km)

- More than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C)
- Taxi, Police, or delivery service (commercial service)
- Trailer towing
- Off-road or desert driving
- If equipped for and operating with E-85 (ethanol) fuel

If ANY of these apply to you, then change your engine oil at every interval shown in schedule "B" of the "Maintenance Schedules" section of this manual.

If none of these apply to you, then change your engine oil at every interval shown on schedule "A" of the "Maintenance Schedules" section of this manual.

**NOTE:** Under no circumstances should oil change intervals exceed 6,000 miles (10 000 km) or 6 months whichever comes first.

## Engine Oil Selection

For best performance and maximum protection for all engines under all types of operating conditions, the manufacturer recommends engine oils that are API Certified and meet the requirements of DaimlerChrysler Material Standard MS-6395.

### American Petroleum Institute (API) Engine Oil Identification Symbol



This symbol means that the oil has been certified by the American Petroleum Institute (API). The manufacturer only recommends API Certified engine oils.

### Engine Oil Viscosity (2.4L Engines)

SAE 5W-30 engine oil is recommended for all operating temperatures. This engine oil improves low temperature starting and vehicle fuel economy. Your engine oil filler cap shows the recommended engine oil viscosity for your vehicle.

### Engine Oil Viscosity (4.0L Engines)

SAE 10W-30 engine oil is recommended for all operating temperatures. This engine oil improves low temperature starting and vehicle fuel economy. Your engine oil filler cap shows the recommended engine oil viscosity for your vehicle.

Lubricants which do not have both, the engine oil certification mark and the correct SAE viscosity grade number should not be used.

### Materials Added To Engine Oils

The manufacturer strongly recommends against the addition of any additives (other than leak detection dyes) to engine oil. Engine oil is an engineered product and its performance may be impaired by supplemental additives.

### Disposing of Used Engine Oil

Care should be taken in disposing of used engine oil from your vehicle. Used oil, indiscriminately discarded, can present a problem to the environment. Contact your authorized dealer, service station, or governmental agency for advice on how and where used oil can be safely discarded in your area.

### Engine Oil Filter

The engine oil filter should be replaced at every engine oil change.

## Engine Oil Filter Selection

All of the manufacturer's engines have a full-flow type disposable oil filter. Use a filter of this type for replacement. The quality of replacement filters varies considerably. Only high quality filters should be used to assure most efficient service. Mopar® engine oil filters are high quality oil filters and are recommended.

## Drive Belts — Check Condition and Tension

At the mileage shown in the appropriate "Maintenance Schedule," check all drive belts for condition and proper tension. Improper belt tension can cause belt slippage and failure.

Inspect the drive belt for evidence of cuts, cracks, or glazing and replace them if there is any sign of damage which could result in belt failure. If adjustment is required, adjust the belts according to the specifications and procedures shown in the Service Manual.

Special tools are required to properly measure tension and to restore belt tension to factory specifications. Also, check belt routing to make sure there is no interference between the belts and other engine components.

## Spark Plugs

Spark plugs must fire properly to assure engine performance and emission control. New plugs should be installed at the mileage specified in the appropriate maintenance chart. The entire set should be replaced if there is any malfunction due to a faulty spark plug.

Refer to the "Vehicle Emission Control Information" label in the engine compartment for spark plug information.

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## Catalytic Converter

The catalytic converter requires the use of unleaded fuel only. Leaded gasoline will destroy the effectiveness of the converter as an emission control device.

Under normal operating conditions, the catalytic converter will not require maintenance. However, it is important to keep the engine properly tuned to assure proper catalyst operation and prevent possible catalyst damage.

### CAUTION!

**Damage to the catalytic converter can result if your vehicle is not kept in proper operating condition. In the event of engine malfunction, particularly involving engine misfire or other apparent loss of performance, have your vehicle serviced promptly. Continued operation of your vehicle with a severe malfunction could cause the converter to overheat, resulting in possible damage to the converter and vehicle.**

### WARNING!

**A hot exhaust system can start a fire if you park over materials that can burn. Such materials might be grass or leaves coming into contact with your exhaust system. Do not park or operate your vehicle in areas where your exhaust system can contact anything that can burn.**

In unusual situations involving grossly malfunctioning engine operation, a scorching odor may suggest severe and abnormal catalyst overheating. If this occurs, stop the vehicle, turn off the engine and allow it to cool. Service, including a tune up to manufacturer's specifications, should be obtained immediately.

To minimize the possibility of catalytic converter damage:

- Do not shut off the engine or interrupt the ignition when the transmission is in gear and the vehicle is in motion.
- Do not try to start the engine by pushing or towing the vehicle.
- Do not idle the engine with any spark plug wires disconnected or removed, such as when diagnostic testing.
- Do not idle the engine for prolonged periods during very rough idle or malfunctioning operating conditions.
- Do not allow vehicle to run out of fuel.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

## Engine Timing Belt — 2.4L Engine

Replace the engine timing belt at the intervals described in the appropriate maintenance schedule.

## Ignition Wiring System — 2.4L Engine

Replace the ignition cables at the intervals described in the appropriate maintenance schedule.

## Crankcase Emission Control System

Proper operation of this system depends on freedom from sticking or plugging due to deposits. As vehicle mileage builds up, the PCV valve and passages may accumulate deposits. If a valve is not working properly, replace it with a new valve. DO NOT ATTEMPT TO CLEAN THE OLD PCV VALVE!

Check ventilation hose for indication of damage or plugging deposits. Replace if necessary.

## Fuel Filter

A plugged fuel filter can cause hard starting or limit the speed at which a vehicle can be driven. Should an excessive amount of dirt accumulate in the fuel tank, frequent replacement of the fuel filter which is mounted in the fuel tank may be necessary.

## Engine Air Cleaner Filter

Under normal driving conditions, replace the air filter at the intervals shown on "Maintenance Schedule A." If, however, you drive the vehicle frequently under dusty or severe conditions, the filter element should be inspected periodically and replaced if necessary at the intervals shown on "Maintenance Schedule B."

## WARNING!

The air cleaner can provide protection in the case of engine backfire. Do not remove the air cleaner unless it is necessary for repair or maintenance. Make sure that no one is near the engine compartment before starting the vehicle with the air cleaner removed. Failure to do so can result in serious personal injury.

## Maintenance-Free Battery

Your vehicle is equipped with a maintenance-free battery. You will never have to add water, nor is periodic maintenance required.

**WARNING!**

Battery posts, terminals, and related accessories contain lead and lead compounds. Always wash hands after handling the battery.

| BATTERY CONDITION INDICATOR | O.K. TO JUMP START | DARKENED INDICATOR WITH GREEN DOT<br>• BATTERY CHARGE OK<br>• FLUID LEVEL OK  |
|-----------------------------|--------------------|---|
|                             |                    | DARKENED INDICATOR NO GREEN DOT<br>• BATTERY CHARGE LOW<br>• FLUID LEVEL OK   |
|                             | DO NOT JUMP START  | YELLOW OR BRIGHT INDICATOR<br>• BATTERY CHARGE UNKNOWN<br>• FLUID LEVEL LOW<br>(CHARGE MAY STILL BE SUFFICIENT TO START YOUR CAR) |

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**CAUTION!**

It is essential when replacing the cables on the battery that the positive cable is attached to the positive post and the negative cable is attached to the negative post. Battery posts are marked (+) positive and negative (-) and identified on the battery case. Also, if a "fast charger" is used while battery is in the vehicle, disconnect both vehicle battery cables before connecting the charger to battery. Do not use a "fast charger" to provide starting voltage.

## Air Conditioner Maintenance

For best possible performance, your air conditioner should be checked and serviced by an Authorized Dealer at the start of each warm season. This service should include cleaning of the condenser fins and a performance test. Drive belt tension should also be checked at this time.

### WARNING!

- Use only refrigerants and compressor lubricants approved by the manufacturer for your air conditioning system. Some unapproved refrigerants are flammable and can explode, injuring you. Other unapproved refrigerants or lubricants can cause the system to fail, requiring costly repairs. Refer to Section 3 of the Warranty Information Book for additional warranty information.
- The air conditioning system contains refrigerant under high pressure. To avoid risk of personal injury or damage to the system, adding refrigerant or any repair requiring lines to be disconnected should be done by an experienced repairman.

## Refrigerant Recovery and Recycling

R-134a Air Conditioning Refrigerant is a hydrofluorocarbon (HFC) that is endorsed by the Environmental Protection Agency and is an ozone-saving product. However, the manufacturer recommends that air conditioning service be performed by dealers or other service facilities using recovery and recycling equipment.

## Power Steering Fluid Check

Checking the power steering fluid level at a defined service interval is not required. The fluid should only be checked if a leak is suspected, abnormal noises are apparent, and/or the system is not functioning as anticipated. Coordinate inspection efforts through a certified DaimlerChrysler Dealership."

### WARNING!

Fluid level should be checked on a level surface with the engine off to prevent injury from moving parts, and to insure accurate fluid level reading. Do not overfill. Use only the manufacturer's recommended fluid.

If necessary, add fluid to restore to the proper indicated level. With a clean cloth, wipe any spilled fluid from all surfaces. Refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.

**NOTE:** Upon initial start-up in cold weather, the power steering pump may make noise for a short period of time. This is due to the cold, thick fluid in the steering system. This noise should be considered normal, and does not in any way damage the steering system.

## Driveline And Steering Component Lubrication

U-joints (cardan joints) are sealed and do not require lubrication. Prop shafts, yokes, ball joints and other driveline and steering components may be provided with grease fittings for lubrication. Lubrication of these components at the intervals specified in the appropriate "Maintenance Schedule" in Section 8 is very important, particularly if your vehicle is subjected to off-road or other heavy-duty use. See your authorized dealer for complete service information.

## Body Lubrication

Locks and all body pivot points, including such items as seat tracks, doors, tailgate and hood hinges, should be lubricated periodically to assure quiet, easy operation and to protect against rust and wear. Prior to the application of any lubricant, the parts concerned should be wiped clean to remove dust and grit; after lubricating excess oil and grease should be removed. Particular

attention should also be given to hood latching components to insure proper function. When performing other underhood services, the hood latch, release mechanism and safety catch should be cleaned and lubricated.

The external lock cylinders should be lubricated twice a year, preferably in the fall and spring. Apply a small amount of a high quality lubricant such as Mopar® Lock Cylinder Lubricant directly into the lock cylinder.

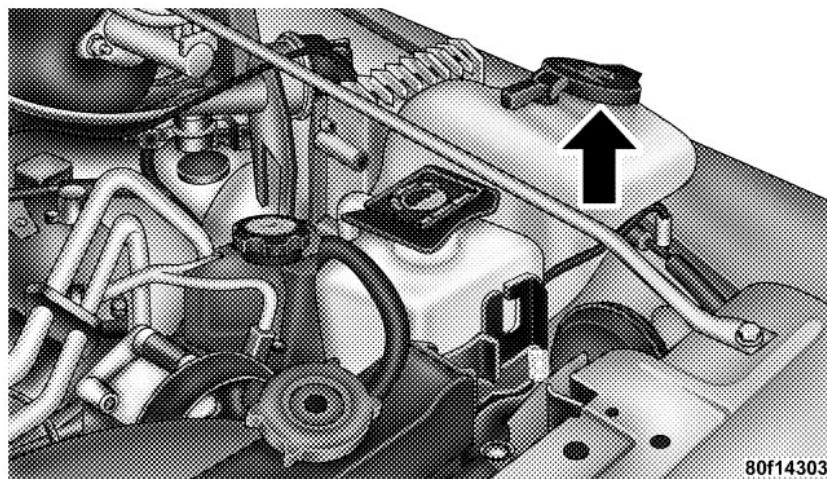
## Windshield Wiper Blades

Clean the rubber edges of the wiper blades and the windshield periodically with a sponge or soft cloth and a mild non-abrasive cleaner. This will remove accumulations of salt or road film.

Operation of the wipers on dry glass for long periods may cause deterioration of the wiper blades. Always use washer fluid when using the wipers to remove salt or dirt from a dry windshield. Avoid using the wiper blades to

remove frost or ice from the windshield. Keep the blade rubber out of contact with petroleum products such as engine oil, gasoline, etc.

## Windshield Washers



The fluid reservoir in the engine compartment should be checked for fluid level at regular intervals. Fill the

reservoir with windshield antifreeze (not radiator antifreeze) rated not to freeze at -25°F (-31°C). Operate the system for a few seconds to flush out the residual water.

### WARNING!

Commercial windshield washer solvents are flammable. They could ignite and burn you. Care must be exercised when filling or working around the washer solution.

## Exhaust System

The best protection against carbon monoxide entry into the vehicle body is a properly maintained engine exhaust system.

If you notice a change in the sound of the exhaust system; or if the exhaust fumes can be detected inside the vehicle; or when the underside or rear of the vehicle is damaged;

have an authorized technician inspect the complete exhaust system and adjacent body areas for broken, damaged, deteriorated, or mispositioned parts. Open seams or loose connections could permit exhaust fumes to seep into the passenger compartment. In addition, inspect the exhaust system each time the vehicle is raised for lubrication or oil change. Replace as required.

## Cooling System

### WARNING!

You or others can be badly burned by hot antifreeze/coolant or steam from your radiator. If you see or hear steam coming from under the hood, don't open the hood until the radiator has had time to cool. Never try to open a cooling system pressure cap when the radiator or coolant bottle is hot.

### Engine Coolant Checks

Check antifreeze/coolant protection every 12 months (before the onset of freezing weather, where applicable). If antifreeze/coolant is dirty or rusty in appearance, the system should be drained, flushed and refilled with fresh antifreeze/coolant. Check the front of the A/C condenser (if equipped) or radiator for any accumulation of bugs, leaves, etc. If dirty, clean by gently spraying water from a garden hose vertically down the face of the A/C condenser (if equipped) or the back of the radiator core.

Check the engine cooling system hoses for brittle rubber, cracking, tears, cuts, and tightness of the connection at the coolant recovery bottle and radiator. Inspect the entire system for leaks.

With the engine at normal operating temperature (but not running), check the cooling system pressure cap for proper vacuum sealing by draining a small amount of antifreeze/coolant from the radiator drain cock. If the cap is sealing properly, the antifreeze/coolant will begin to drain from the coolant recovery bottle. DO NOT REMOVE THE COOLANT PRESSURE CAP WHEN THE COOLING SYSTEM IS HOT.

### Cooling System — Drain, Flush, And Refill

At the intervals shown in the appropriate "Maintenance Schedule," the system should be drained, flushed, and refilled.

If the solution is dirty and contains a considerable amount of sediment, clean and flush with reliable cooling system cleaner. Follow with a thorough rinsing to remove all deposits and chemicals. Properly dispose of old antifreeze/coolant solution.

Discard old antifreeze/coolant solution according to recommended procedure.

### Selection Of Engine Coolant

Use only the manufacturer's recommended antifreeze/coolant, refer to Fluids, Lubricants, and Genuine Parts for correct antifreeze/coolant type.

**CAUTION!**

- Mixing of antifreeze/coolant other than the specified HOAT antifreeze/coolant may result in decreased corrosion protection and engine damage. If a non-HOAT antifreeze/coolant is introduced into the cooling system in an emergency, it should be replaced with the specified antifreeze/coolant as soon as possible.
- Do not use plain water alone or alcohol base antifreeze/coolant products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the antifreeze/coolant and may plug the radiator.
- This vehicle has not been designed for use with Propylene Glycol based antifreeze/coolant. Use of Propylene Glycol base antifreeze/coolant is not recommended.

**Adding Engine Coolant**

Your vehicle has been built with an improved antifreeze/coolant that allows extended maintenance intervals. This antifreeze/coolant can be used up to 5 Years or 100,000 miles before replacement. To prevent reducing this extended maintenance period, it is important that you use the same antifreeze/coolant throughout the life of your vehicle. Please review these recommendations for using Hybrid Organic Additive Technology (HOAT) antifreeze/coolant.

When adding antifreeze/coolant, a minimum solution of 50% recommended Mopar Antifreeze/ Coolant 5 Year/ 100,000 Mile Formula HOAT (Hybrid Organic Additive Technology), or equivalent, in water should be used. Use higher concentrations (not to exceed 70%) if temperatures below -34°F (-37°C) are anticipated.

Use only high purity water such as distilled or deionized water when mixing the water/antifreeze (coolant) solution. The use of lower quality water will reduce the amount of corrosion protection in the engine cooling system.

Please note that it is the owner's responsibility to maintain the proper level of protection against freezing according to the temperatures occurring in the area where the vehicle is operated.

**NOTE:** Mixing antifreeze/coolant types will decrease the life of the antifreeze/coolant and will require more frequent antifreeze/coolant changes.

### Cooling System Pressure Cap

The cap must be fully tightened to prevent loss of antifreeze/coolant, and to insure that antifreeze/coolant will return to the radiator from the coolant reserve tank.

The cap should be inspected and cleaned if there is any accumulation of foreign material on the sealing surfaces.

### WARNING!

The warning words **DO NOT OPEN HOT** on the cooling system pressure cap are a safety precaution. Never add antifreeze/coolant when the engine is overheated. Do not loosen or remove the cap to cool an overheated engine. Heat causes pressure to build up in the cooling system. To prevent scalding or injury, do not remove the pressure cap while the system is hot or under pressure.

### Disposal of Used Engine Coolant

Used ethylene glycol based antifreeze/coolant is a regulated substance requiring proper disposal. Check with your local authorities to determine the disposal rules for your community. To prevent ingestion by animals or

children, do not store ethylene glycol based antifreeze/coolant in open containers or allow it to remain in puddles on the ground. If ingested by a child, contact a physician immediately. Clean up any ground spills immediately.

### Engine Coolant Level

The coolant bottle provides a quick visual method for determining that the coolant level is adequate. With the engine idling, and warm to normal operating temperature, the level of the antifreeze/coolant in the bottle should be between the ranges indicated on the bottle.

The radiator normally remains completely full, so there is not need to remove the radiator cap unless checking for antifreeze/coolant freeze point or replacing antifreeze/coolant. Advise your service attendant of this. As long as the engine operating temperature is satisfactory, the coolant bottle need only be checked once a month.

When additional antifreeze/coolant is needed to maintain the proper level, it should be added to the coolant bottle. Do not overfill.

### Points To Remember

**NOTE:** When the vehicle is stopped after a few miles of operation, you may observe vapor coming from the front of the engine compartment. This is normally a result of moisture from rain, snow, or high humidity accumulating on the radiator and being vaporized when the thermostat opens, allowing hot antifreeze/coolant to enter the radiator.

If an examination of your engine compartment shows no evidence of radiator or hose leaks, the vehicle may be safely driven. The vapor will soon dissipate.

- Do not overfill the coolant bottle.

- Check antifreeze/coolant freeze point in the radiator and in the coolant recovery bottle. If antifreeze/coolant needs to be added, contents of coolant recovery bottle must also be protected against freezing.
- If frequent antifreeze/coolant additions are required, or if the level in the recovery bottle does not drop when the engine cools, the cooling system should be pressure tested for leaks.
- Maintain antifreeze/coolant concentration at 50% HOAT antifreeze/coolant (minimum) and distilled water for proper corrosion protection of your engine which contains aluminum components.
- Make sure that the radiator and coolant recovery bottle hoses are not kinked or obstructed.
- Keep the front of the radiator clean. If your vehicle is equipped with air conditioning, keep the front of the condenser clean, also.

- Do not change the thermostat for summer or winter operation. If replacement is ever necessary, install ONLY the correct type thermostat. Other designs may result in unsatisfactory cooling performance, poor gas mileage, and increased emissions.

### Hoses and Vacuum/Vapor Harnesses

Inspect surfaces of hoses and nylon tubing for evidence of heat and mechanical damage. Hard or soft spots, brittle rubber, cracking, tears, cuts, abrasions, and excessive swelling indicate deterioration of the rubber.

Pay particular attention to the hoses nearest to high heat sources such as the exhaust manifold. Inspect hose routing to be sure hoses do not touch any heat source or moving component that may cause heat damage or mechanical wear.

Insure nylon tubing in these areas has not melted or collapsed. Inspect all hose connections such as clamps and couplings to make sure they are secure and no leaks

are present. Components should be replaced immediately if there is any evidence of degradation that could cause failure.

### **Brake System**

In order to assure brake system performance, all brake system components should be inspected periodically. Refer to the appropriate "Maintenance Schedule" in Section 8 for suggested service intervals.

#### **WARNING!**

**Riding the brakes can lead to brake failure and possibly an accident. Driving with your foot resting or riding on the brake pedal can result in abnormally high brake temperatures, excessive lining wear, and possible brake damage. You wouldn't have your full braking capacity in an emergency.**

### **Brake and Power Steering System Hoses**

When servicing the vehicle for scheduled maintenance, inspect surface of hoses for evidence of heat and mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasion, and excessive swelling suggest deterioration of the rubber. Particular attention should be made to examining those hose surfaces nearest to high heat sources, such as the exhaust manifold.

Inspect all hose clamps and couplings to make sure they are secure and no leaks are present.

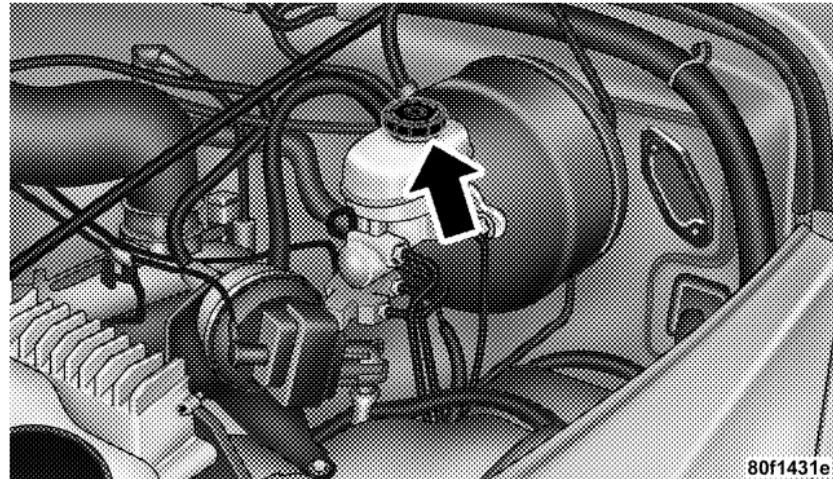
**NOTE:** Inspection of brake hoses should be done whenever the brake system is serviced and every engine oil change.

**WARNING!**

**Worn brake hoses can burst and cause brake failure. You could have an accident. If you see any signs of cracking, scuffing, or worn spots, have the brake hoses replaced immediately.**

**Brake Master Cylinder**

The fluid level in the master cylinder should be checked when performing under hood services, or immediately if the BRAKE warning light shows system failure



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Be sure to clean the top of the master cylinder area before removing the cap. If necessary, add fluid to bring the fluid level up to the requirements described on the brake fluid reservoir. With disc brakes, fluid level can be expected to fall as the brake pads wear. Brake fluid level

should be checked when pads are replaced. However, low fluid level may be caused by a leak and a checkup may be needed.

Use only manufacturer's recommended brake fluid, refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.

### WARNING!

- Use of a brake fluid that may have a lower initial boiling point or unidentified as to specification, may result in sudden brake failure during hard prolonged braking. You could have an accident.
- Overfilling the brake fluid reservoir can result in spilling brake fluid on hot engine parts and the brake fluid catching fire.

Use only brake fluid that has been in a tightly closed container to avoid contamination from foreign matter. Do not allow petroleum base fluid to contaminate the brake fluid as seal damage will result.

### Automatic Transmission

#### Selection of Lubricant

It is important that the proper lubricant is used in the transmission to assure optimum transmission performance. Use only manufacturer's recommended transmission fluid, refer to Fluids, Lubricants, and Genuine Parts for correct fluid type. It is important that the transmission fluid be maintained at the prescribed level using the recommended fluid.

## CAUTION!

**Using a transmission fluid other than the manufacturer's recommended fluid may cause deterioration in transmission shift quality and/or torque converter shudder. Using a transmission fluid other than the manufacturer's recommended fluid will result in more frequent fluid and filter changes. Refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.**

### Fluid Level Check — 42RLE

This fluid level should be checked when the engine is fully warmed up and the fluid in the transmission is heated to its normal operating temperature. Operation of the transmission with an improper fluid level will greatly reduce the life of the transmission and of the fluid.

To check the automatic transmission fluid level properly, the following procedure must be used:

1. The vehicle must be on level ground.
2. The engine should be running at curb idle speed for a minimum of 60 seconds.
3. Fully apply parking brake.
4. Apply the brakes and shift the transmission momentarily into each gear position ending in P (Park).
5. The fluid **MUST** be checked with the transmission in P (Park) to be sure that the fluid level is accurate.
6. Wipe the dipstick clean and reinsert until seated. Remove dipstick and note reading.

At normal operating temperature (approximately 180° F (82° C), the fluid level is correct if it is in the HOT region

(cross-hatched area) on the oil level indicator. The fluid level indicator should be in the COLD region at 70° F (21° C) fluid temperature.

If the fluid level is low, add sufficient fluid to bring to the proper level. Refer to Fluids, Lubricants and Genuine Parts for correct fluid type.

Fluid is added through the dipstick tube.

**NOTE:** To prevent dirt and water from entering the transmission after checking or replenishing fluid, make certain that the dipstick cap is properly reseated.

### **Special Additives**

The manufacturer strongly recommends against the addition of any additives to the transmission. The only exception to this policy is the use of special dyes to aid in detecting fluid leaks. The use of transmission sealers should be avoided as they may adversely affect seals.

## **Hydraulic Clutch Fluid — Manual Transmission**

The clutch hydraulic system is a sealed maintenance free system. In the event of leakage or other malfunction, the system must be replaced.

### **Manual Transmission**

#### **Selection of Lubricant**

Use only manufacturer's recommended manual transmission fluid, refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.

#### **Fluid Level Check**

Check the fluid level by removing the fill plug. The fluid level should be between the bottom of the fill hole and a point not more than 3/16" (4.76 mm) below the bottom of the hole.

Add fluid, if necessary, to maintain the proper level.

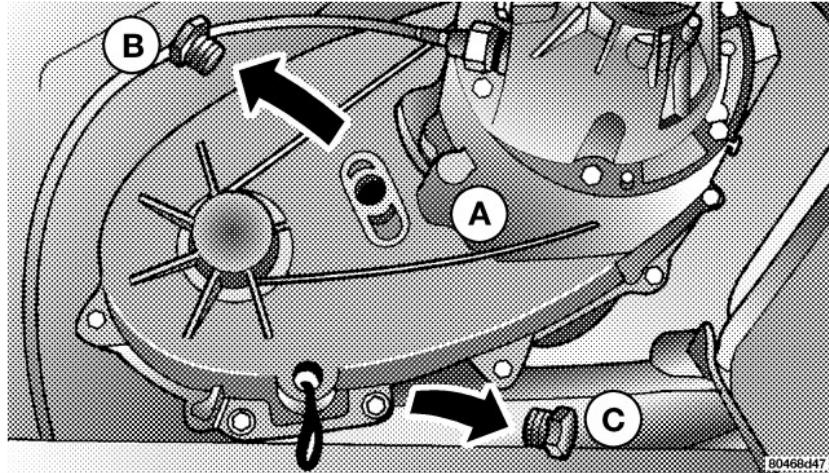
## Frequency of Fluid Change

Under normal operating conditions, the fluid installed at the factory will give satisfactory lubrication for the life of the vehicle. Fluid changes are not necessary unless the lubricant has become contaminated with water. If contaminated with water, the fluid should be changed immediately.

## Transfer Case

### Fluid Level Check

The fluid level should be to the bottom edge of the fill hole (A) when the vehicle is in a level position.



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### Adding Fluid

Fluid should be added only at filler hole until fluid begins to run out of the hole.

### Drain

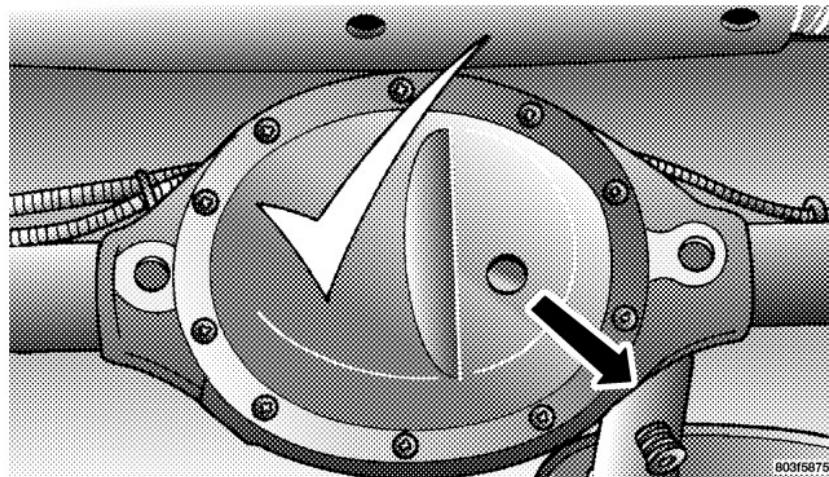
First remove fill plug (B), then drain plug (C). Recommended tightening torque for drain and fill plugs is 15–25 ft.lbs. (20–34 N·m).

**CAUTION!**

When replacing plugs, do not overtighten. You could damage them and cause them to leak.

**Selection of Lubricant**

Use only manufacturer's recommended fluid, refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.

**Front/Rear Axle Fluid****Fluid Level Check**

Lubricant should be at bottom edge of the oil fill hole.

**Adding Fluid**

Add lubricant only at the fill hole and only to the level specified above.

## Selection of Lubricant

Use only manufacturer's recommended fluid, refer to Fluids, Lubricants, and Genuine Parts for correct fluid type.

## Maintenance After Off-Road Driving

After extended operation in mud, sand or water, or similar dirty conditions, have your brake drums, brake linings, and axle joints inspected and cleaned as soon as possible. This will prevent any abrasive material from causing excessive wear or unpredictable braking action.

Following off-road usage, completely inspect the underbody of your vehicle. Check tires, body structure, steering, suspension and exhaust system for damage. Check threaded fasteners for looseness, particularly on the chassis, drivetrain components, steering and suspension. Retighten, if required, to torque values specified in the Service Manual. Also check for accumulations of vegetation or brush that could become a fire hazard, or conceal

damage to fuel lines, brake hoses, axle pinion seals, and propeller shafts. Check air conditioning drain tube on the lower dash wall in the engine compartment for mud or debris, and clean as required. A plugged tube will adversely affect air conditioning performance.

### CAUTION!

Under frequent heavy-duty driving conditions, change all lubricants, and lubricate body components and steering linkage more often than in normal service to prevent excessive wear.

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## Appearance Care And Protection From Corrosion

### Protection Of Body And Paint From Corrosion

Vehicle body care requirements vary according to geographic locations and usage. Chemicals that make roads passable in snow and ice, and those that are sprayed on

trees and road surfaces during other seasons, are highly corrosive to the metal in your vehicle. Outside parking, which exposes your vehicle to airborne contaminants, road surfaces on which the vehicle is operated, extreme hot or cold weather and other extreme conditions will have an adverse effect on paint, metal trim, and under-body protection.

The following maintenance recommendations will enable you to obtain maximum benefit from the corrosion resistance built into your vehicle.

### What Causes Corrosion?

Corrosion is the result of deterioration or removal of paint and protective coatings from your vehicle.

The most common causes are:

- Road salt, dirt and moisture accumulation.
- Stone and gravel impact.

- Insects, tree sap and tar.
- Salt in the air near sea-coast localities.
- Atmospheric fallout/industrial pollutants.
- Bird droppings.

### Washing

- Wash your vehicle regularly. Always wash your vehicle in the shade using Mopar® Car Wash or a mild car wash soap, and rinse the panels completely with clear water.
- If insects, tar, or other similar deposits have accumulated on your vehicle, use Mopar® Super Kleen Bug and Tar Remover to remove.
- Use Mopar® Cleaner Wax to remove road film, stains, and to protect your paint finish. Take care never to scratch the paint.

- Avoid using abrasive compounds and power buffing that may diminish the gloss or thin out the paint finish.

### CAUTION!

**Do not use abrasive or strong cleaning materials such as steel wool or scouring powder, which will scratch metal and painted surfaces.**

### Special Care

- If you drive on salted or dusty roads or if you drive near the ocean, hose off the undercarriage at least once a month.
- It is important that the drain holes in the lower edges of the doors, rocker panels and tailgate must be kept clear and open.

- If you detect any stone chips or scratches in the paint, touch them up immediately. The cost of such repairs is considered the responsibility of the owner.
- If your vehicle is damaged due to an accident or similar cause which destroys the paint and protective coating have your vehicle repaired as soon as possible. The cost of such repairs is considered the responsibility of the owner.
- Aluminum wheels should be cleaned regularly with a mild soap and water to prevent corrosion. To remove heavy soil, use Mopar® Wheel Cleaner or select a nonabrasive, non-acidic cleaner. Do not use scouring pads, steel wool, a bristle brush or metal polishes. Only Mopar® cleaners are recommended. Do not use oven cleaner. Avoid automatic car washes that use acidic solutions or harsh brushes that may damage the wheels' protective finish.

- If you carry special cargo such as chemicals, fertilizers, de-icer salt, etc., assure that such materials are well packaged and sealed.
- If a lot of driving is done on gravel roads, consider mud or stone shields behind each wheel.
- Use Mopar® Touch Up Paint on scratches or chips as soon as possible. Your authorized dealer has touch up paint to match the color of your vehicle.

## Interior Care

Use Mopar® Total Clean to clean fabric upholstery and carpeting.

Interior Trim should be cleaned starting with a damp cloth, a damp cloth with Mopar® Total Clean, then Mopar® Spot & Stain Remover if absolutely necessary. Do not use harsh cleaners or Armorall. Use Mopar® Total Clean to clean vinyl upholstery.

## WARNING!

**Do not use volatile solvents for cleaning purposes. Many are potentially flammable, and if used in closed areas they may cause respiratory harm.**

## Glass Surfaces

All glass surfaces should be cleaned on a regular basis with Mopar® Glass Cleaner or any commercial household-type glass cleaner. Never use an abrasive type cleaner. Use caution when cleaning inside rear windows equipped with electric defrosters. Do not use scrapers or other sharp instruments which may scratch the elements.

When cleaning the rear view mirror, spray cleaner on the towel or rag that you are using. Do not spray cleaner directly on the mirror.

## Cleaning Plastic Instrument Cluster Lenses

The lenses in front of the instruments in this vehicle are molded in clear plastic. When cleaning the lenses, care must be taken to avoid scratching the plastic.

1. Clean with a wet soft rag. A mild soap solution may be used, but do not use high alcohol content or abrasive cleaners. If soap is used, wipe clean with a clean damp rag.
2. Dry with a soft tissue.

## Seat Belt Maintenance

Do not bleach, dye or clean the belts with chemical solvents or abrasive cleaners. This will weaken the fabric. Sun damage will also weaken the fabric.

If the belts need cleaning, use Mopar® Total Clean, a mild soap solution, or lukewarm water. Do not remove the belts from the vehicle to wash them.

Replace the belts if they appear frayed or worn or if the buckles do not work properly.

## Carpet

Vacuum your carpet regularly to prevent a soil build-up. Shampoo soiled carpet with a reliable upholstery cleaner, using a natural sponge or soft bristle brush. After carpet dries, vacuum it thoroughly.

### WARNING!

Only remove the carpet for cleaning purposes. It provides insulation against high floor pan temperatures. You or your passengers could be burned if the carpet is not properly in place. Always put the carpet back into the vehicle before driving.

*Follow These Steps To Remove The Carpet:*

1. Unsnap the front and rear floor carpets. A snap is located on the outboard side of each front seat.
2. Remove the attachment cap from the front footwell area on both the driver and passenger side. The cap is removed by pulling it straight out.
3. Remove the front and rear floor carpets.
4. Remove the cargo floor and wheelhouse carpets.

**NOTE:** If your vehicle is equipped with an Add-A-Trunk™ it must be removed to be able to remove the cargo floor and wheelhouse carpets. For Add-A-Trunk™ removal procedure, refer to "Storage" in Section 3 of this manual.

*Follow These Steps To Replace The Carpet:*

1. Place the front floor carpets in the vehicle.

2. Attach the carpet to the studs in the footwell and press on the attachment caps to secure the carpet.
3. Place rear floor carpet in vehicle and snap rear carpet to front floor carpet.
4. Install wheelhouse carpet followed by the cargo floor carpet.
5. Reinstall Add-A-Trunk™ if so equipped.

**Appearance Care For Fabric Top Models****CAUTION!**

**To maintain the appearance of your vehicle's interior trim and top, follow these precautions:**

- Avoid leaving your vehicle unattended with the top down, as exposure to sun or rain may damage interior trim.

- Do not use harsh cleaners or bleaching agents on top material, as damage may result.
- Do not allow any vinyl cleaner to run down and dry on the paint, leaving a streak.
- After cleaning your vehicle's fabric top, always make sure it is completely dry before lowering.
- Be especially careful when washing the windows by following the directions for "Care of Fabric Top Windows."

**WASHING** — Use Mopar® Car Wash or mild soap suds, lukewarm water, and a brush with soft bristles. If extra cleaning is required, use Mopar® Convertible Cloth Top Cleaner or a mild foaming cleaner on the entire top, but support top from underneath.

**RINSING** — Be sure to remove all trace of cleaner by rinsing the top thoroughly with clean water. Remember to allow the top to dry before lowering it.

## Care Of Fabric Top Windows

### CAUTION!

Your vehicle's fabric top has pliable plastic windows which can be scratched unless special care is taken by following these directions:

1. Never use a dry cloth to remove dust. Instead, **use a microfiber towel or soft cotton cloth moistened with cold or warm, clean water, and wipe across the window, not up and down.** Mopar® Jeep Soft Glass Window Cleaner will safely clean all plastic windows without scratching. Removes fine scratches to improve visibility and provide UV protection to help prevent yellowing.
2. When washing, **never use hot water** or anything stronger than a mild soap. Never use solvents such as alcohol or harsh cleaning agents.

3. Always rinse thoroughly with cold water, then wipe with a soft and slightly moist, clean cloth.
4. When removing frost, snow or ice, **never use a scraper or de-icing chemicals**. Use warm water only if you must clean the window quickly.
5. Debris (sand, mud/dirt, dust, or salt) from off-road driving will have a major impact on zipper operation. Even normal on-road driving and vehicle washing will eventually impact window zipper operation. To maintain ease of use of the window zippers, each window zipper should be cleaned and lubricated regularly. Use Mopar® Soft Top Zipper Cleaner and Lubricant to ease zipper operation. Before applying, make sure the zipper teeth

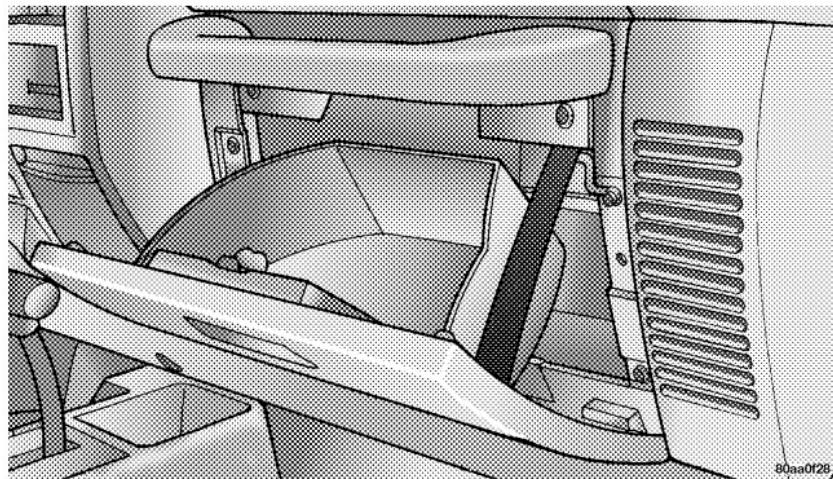
are clear of sand, mud, and other materials. Clean both sides of the zipper, not just one side. Rinse both zipper halves with fresh water and allow to dry. Aggressively work the Mopar® Soft Top Zipper Cleaner and Lubricant into the zipper teeth. If a stuck zipper slide is experienced, work the Mopar® Soft Top Zipper Cleaner and Lubricant into the zipper slide. Several applications may be required before the zipper comes free.

6. Never paste stickers, gummed labels or any tape to the windows. Adhesives are hard to remove and may damage the windows.

## FUSE PANEL

### Interior Fuses

The fuse panel is located behind the glove box.



**Fuse Panel**

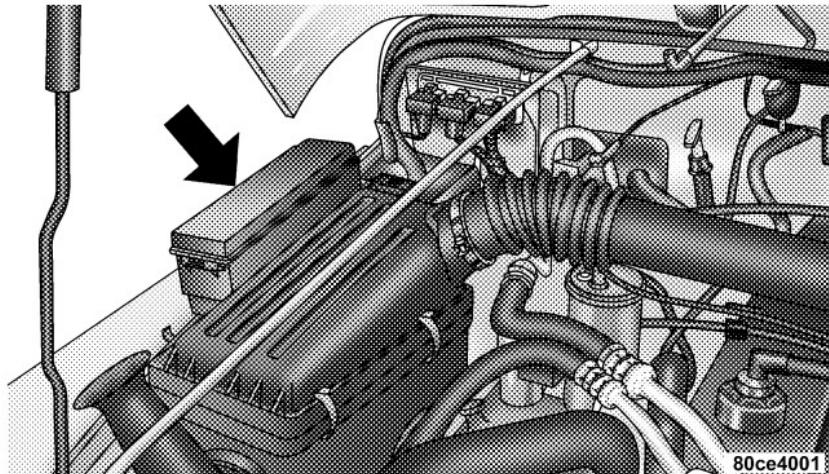
To access the fuse panel the glove box must be removed. It is removed by slipping the glove box strap off the hook and letting the door roll down off its hinges. To reinstall, position the glove box door at an 8 o'clock orientation, engage the hinge hook formations on the lower edge of the glove box door with the hinge pins on the lower edge of the instrument panel. Tilt the upper edge of the glove box door upward toward the instrument panel enough to reattach the glove box strap to the door. Rotate glove box door to closed position. Open and close to insure proper installation.

| Cavity | Fuse          | Description                                      |
|--------|---------------|--|
| 1      | 20 Amp Yellow | Park Lights, Skim (Sentry Key)                   |
| 2      | 20 Amp Yellow | Stop Lights                                      |
| 3      | 20 Amp Yellow | Subwoofer System                                 |
| 4      | 10 Amp Red    | Door Switch Defeat                               |
| 5      | 10 Amp Red    | Airbag   |
| 6      | 20 Amp Yellow | Rear Wiper                                       |
| 7      | 10 Amp Red    | Back-Up Lights, Rear Window Defroster Relay, ABS |
| 8      | 10 Amp Red    | HEVAC  |
| 9      | 10 Amp Red    | Airbag   |
| 10     | 10 Amp Red    | Instrument Cluster                               |
| 11     | 10 Amp Red    | Solenoids, DRL                                   |

| Cavity | Fuse           | Description                                  |
|--------|----------------|--|
| 12     | 10 Amp Red     | Power Distribution Relays, Skim (Sentry Key) |
| 13     | 10 Amp Red     | Turn Signals                                 |
| 14     | 10 Amp Red     | Radio  |
| 15     | 10 Amp Red     | HBL (Rear Window Defroster) Switch           |
| 16     | 10 Amp Red     | Headlamp Aim (Export Only)                   |
| 17     | 25 Amp Natural | Front Wiper                                  |
| 18     | 20 Amp Yellow  | Cigar Lighter                                |
| 19     | 20 Amp Yellow  | Spare  |
| 20     | 20 Amp Yellow  | Spare  |

## Underhood Fuses (Power Distribution Center)

Your vehicle is equipped with an electrical power distribution center located in the engine compartment near the battery. This power center houses plug-in "Cartridge" fuses, ISO relays, and Mini (Micro) fuses.



Power Distribution Center

A label inside the latching cover of the center identifies each component for ease of replacement, if necessary. Cartridge and mini (micro) fuses can be obtained from your authorized dealer.

| Cavity | Fuse/Color    | Description                 |
|--------|---------------|-----------------------------|
| 1      | 40 Amp Green  | HEVAC                       |
| 2      | 40 Amp Green  | HBL (Rear Window Defroster) |
| 3      | 40 Amp Green  | Exterior Lighting           |
| 4      | 40 Amp Green  | Radiator Fan                |
| 5      | 20 Amp Yellow | Transmission                |
| 6      | 30 Amp Pink   | Starter                     |
| 7      | Open          |                             |
| 8      | 40 Amp Green  | ABS Motor                   |
| 9      | 20 Amp Yellow | ASD                         |
| 10     | 40 Amp Green  | HD/LP                       |
| 11     | Open          | IOD Storage                 |
| 12     | 30 Amp Pink   | ABS Valve                   |

| Cavity | Fuse/Color      | Description     |
|--------|-----------------|-----------------|
| 13     | 40 Amp Green    | Accessories     |
| 14     | Open            |                 |
| 15     | 50 Amp Red      | IOD             |
| 16     | Open            |                 |
| 17     | 20 Amp Yellow   | Power           |
| 18     | 20 Amp Yellow   | Horn            |
| 19     | 20 Amp Yellow   | Fog Lights      |
| 20     | 15 Amp Lt. Blue | Radio           |
| 21     | 10 Amp Red      | A/C Clutch      |
| 22     | 25 Amp Natural  | Ignition Switch |
| 23     | 20 Amp Yellow   | Fuel            |
| 24     | 20 Amp Yellow   | Off Road        |
| 25     | Open            |                 |
| 26     | 10 Amp Red      | Accessories     |
| 27     | 20 Amp Yellow   | MFSW            |
| 28     | 10 Amp Red      | Clutch Override |

| Cavity | Fuse/Color | Description  |
|--------|------------|--|
| 29     | Relay      | ASD  |
| 30     | Relay      | A/C Clutch   |
| 31     | Relay      | Transmission   |
| 32     | Relay      | Starter  |
| 33     | Relay      | ABS  |
| 34     | Open       |  |
| 35     | Relay      | Fog Lamp   |
| 36     | Relay      | Horn   |
| 37     | Relay      | Fuel Pump  |
| 38     | Relay      | HBL (Rear Window Defroster)  |
| 39     | Relay      | Front Differential Locker (Rubicon) or High Speed Fan (2.4L Engines) |
| 40     | Relay      | Rear Differential Locker (Rubicon) or Low Speed Fan (2.4L Engines)   |

## VEHICLE STORAGE

If you are leaving your vehicle dormant for more than 21 days you may want to take steps to protect your battery. You may:

- Remove Cartridge fuse #15 in the Power Distribution Center labeled Ignition-Off Draw (IOD).
- Store the removed IOD fuse in the Power Distribution Center location #11 labeled "IOD Storage."
- Or, disconnect the negative cable from the battery.
- Anytime you store your vehicle, or keep it out of service (i.e. vacation) for two weeks or more, run the air conditioning system at idle for about five minutes in the fresh air and high blower setting. This will insure adequate system lubrication to minimize the possibility of compressor damage when the system is started again.

## REPLACEMENT BULBS — IF EQUIPPED

|   | <b>Bulb Type</b> |
|---|------------------|
| Interior Lights   | 658              |
| Auto. Trans. Indicator Light . . . . .  | 658              |
| Courtesy Lights, Under Dash (1) . . . . .   | 906              |
| Heater Control Lights (2) . . . . .   | 194              |
| Rocker Switch Indicator Light<br>(Rear Window Defogger, and Rear Wash/Wipe) . . . . . | **               |
| Soundbar Dome Light . . . . .   | 912              |

\*\* Bulbs only available from authorized dealer.

|                                | <b>Bulb Type</b> |
|--------------------------------|------------------|
| Instrument Cluster             | 74               |
| Telltale (High Beam) . . . . . | 74               |
| Illumination . . . . .         | 103              |

**Exterior Lights**

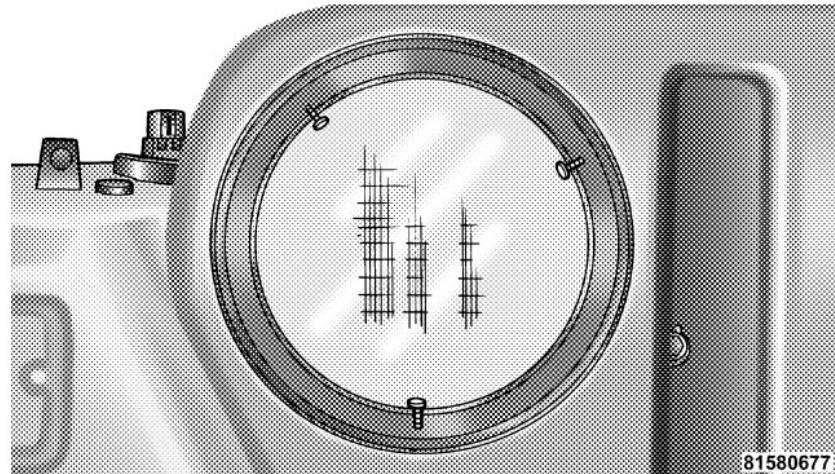
|  | Bulb Type   |
|--|-------------|
| Backup Lights (2) . . . . .                  | 1156        |
| Center High Mounted Stop Light (1) . . . . . | 921 or W16W |
| Fog Lights . . . . .                         | H3          |
| Front Park/Turn Lights (2) . . . . .         | 3157        |
| Front Side Marker Lights (2) . . . . .       | 168 or W3W  |
| Headlights (2) . . . . .                     | H 6024BL    |
| Stop/Tail/Turn Lights (2) . . . . .          | 1157        |
| Underhood Light . . . . .                    | 561         |
| License Light . . . . .                      | 1157        |

**NOTE:** Numbers refer to commercial bulb types that can be purchased from your local authorized dealer.

If a bulb needs to be replaced, visit your authorized dealer or refer to the applicable Service Manual.

**BULB REPLACEMENT****Head Light**

1. Remove headlight bezel screws as shown.



2. Remove the headlight bezel.
3. Remove the screws for the headlight retaining ring, then remove ring.

4. Remove and replace the lamp.



### Front Park/Turn Signal

1. Reach under the front fender and locate the front park/turn signal socket.

2. Turn the socket assembly counter-clockwise 1/3 turn and remove it from the housing. Pull the bulb straight from the socket to replace.

### Front Side Marker

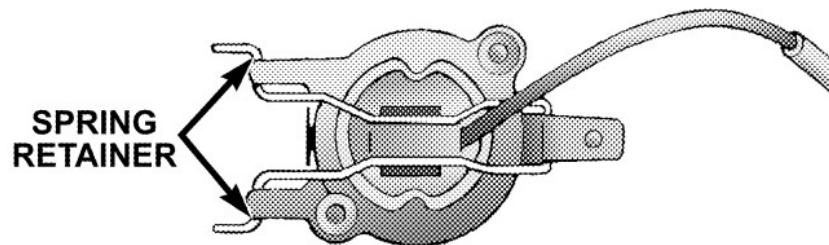
1. Reach under the front fender and locate the front side marker socket.
2. Turn the socket assembly counter-clockwise 1/3 turn and remove it from the housing. Pull the bulb straight from the socket to replace.

### Front Fog Light

1. Remove the three screws that attach the lamp bezel to the lamp housing.
2. Separate the reflector from the light housing.

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3. Squeeze the bulb/element spring retainer from the reflector.
4. Disconnect the electrical connector.



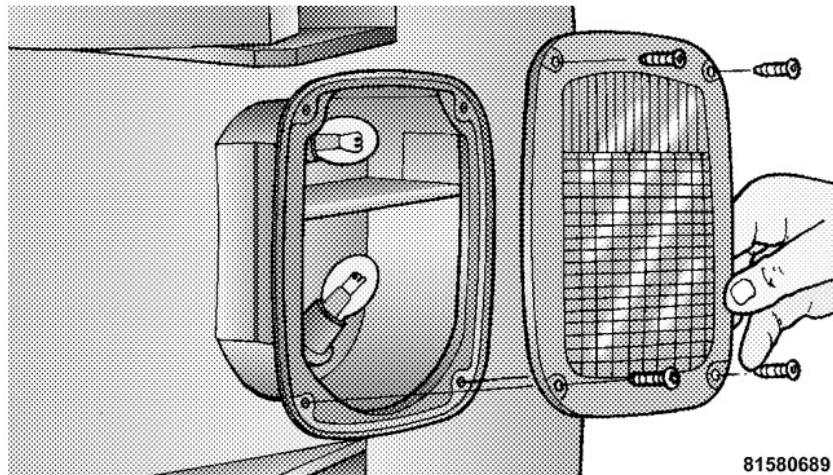
**CAUTION!**

Do not touch the new bulb with your fingers. Oil contamination will severely shorten bulb life. If the bulb comes in contact with any oily surface, clean the bulb with rubbing alcohol.

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## Rear Tail, Stop, Turn Signal, and Back-Up Lights

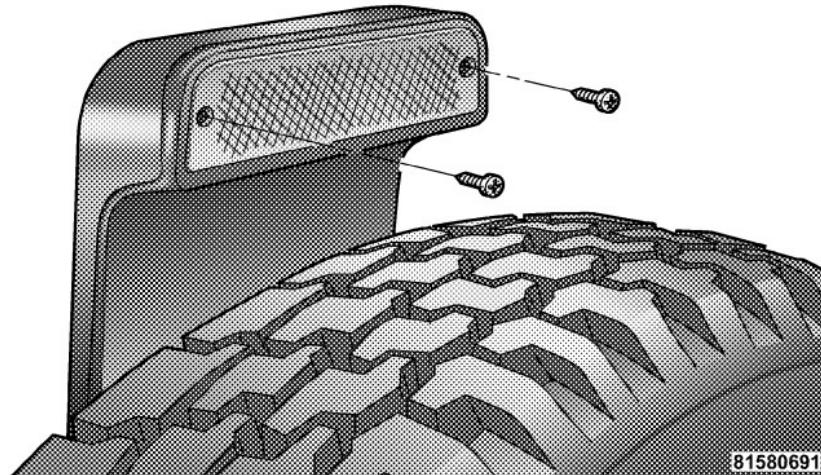
1. Remove the screws attaching the lens to the taillight housing.



2. Separate the lens from the housing.
3. Push the bulb in, turn it counter-clockwise 1/3 turn, then remove it from the housing, and replace.

## Center High Mounted Stop Light (CHMSL)

The stop lamp is mounted on a bracket that extends upward from the tailgate. Remove the two screws holding the lens in place. Take the lens off and pull the bulb from the socket.



## FLUID CAPACITIES

|   | U.S.       | Metric      |
|---|------------|-------------|
| <b>Fuel (Approximate)</b>   | 19 Gallons | 71.9 Liters |
| <b>Engine Oil with Filter</b>   |            |             |
| 2.4 Liter Engine (SAE 5W-30, API Certified Engine Oil)                              | 5 Qts      | 4.7 Liters  |
| 4.0 Liter Engine (SAE 10W-30, API Certified Engine Oil)                             | 6 Qts      | 5.7 Liters  |
| <b>Cooling System *</b>   |            |             |
| 2.4 Liter Engine (Mopar® Antifreeze/Engine Coolant 5 Year/<br>100,000 Mile Formula) | 9 Qts      | 8.5 Liters  |
| 4.0 Liter Engine (Mopar® Antifreeze/Engine Coolant 5 Year/<br>100,000 Mile Formula) | 10.5 Qts   | 9.9 Liters  |

\* Includes heater and coolant recovery bottle filled to MAX level.

## FLUIDS, LUBRICANTS AND GENUINE PARTS

### Engine

| Component                | Fluid, Lubricant, or Genuine Part   |
|--------------------------|---|
| Engine Coolant           | Mopar® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology)   |
| Engine Oil               | API Certified SAE 5W-30 Engine Oil is recommended for the 2.4L engine. API Certified SAE 10W-30 Engine Oil is recommended for the 4.0L engine. Meets the requirements of DaimlerChrysler Material Standard MS-6395. |
| Spark Plugs              | Refer to the Vehicle Emission Control Information label in the engine compartment.  |
| Oil Filter (2.4L Engine) | Mopar® Oil Filter (P/N 4105409AB)   |
| Oil Filter (4.0L Engine) | Mopar® Oil Filter (P/N 05281090)  |
| Fuel Selection           | 87 Octane   |

## Chassis

| Component   | Fluid, Lubricant, or Genuine Part  |
|---|--|
| Automatic Transmission  | Mopar® ATF+4 Automatic Transmission Fluid  |
| Manual Transmission   | Mopar® Manual Transmission Lubricant or equivalent (meeting the requirements of DaimlerChrysler Material Standard MS-9224)   |
| Transfer Case   | Mopar® ATF+4 Automatic Transmission Fluid or equivalent.   |
| Axle Differential (Front)   | Mopar® Gear & Axle Lubricant (SAE 80W-90) (API GL-5) or equivalent.  |
| Axle Differential (Rear)  | <b>194 RBI (Model 35) and 216 RBI (Model 44)</b> - Mopar® Gear & Axle Lubricant (SAE 80W-90) (API GL-5) or equivalent. For trailer towing, use Mopar® Synthetic Gear & Axle Lubricant (SAE 75W-140) or equivalent. Models equipped with Trac-Lok require an additive. <b>Rubicon 216 RBI (Model 44)</b> - Mopar® Synthetic Gear & Axle Lubricant (SAE 75W-140) or equivalent. Models equipped with Trac-Lok require an additive. |
| Brake Master Cylinder   | Mopar® DOT 3 Brake Fluid, SAE J1703 should be used. If DOT 3, SAE J1703 brake fluid is not available, then DOT 4 is acceptable. Use only recommended brake fluids.   |
| Power Steering Reservoir  | Mopar® ATF+4 Automatic Transmission Fluid  |
| Steering Gear & Linkage,<br>Ball Joints, Prop Shafts &<br>Yokes, Wheel Bearings | Mopar® Multi-Purpose Grease NLGI Grade 2 EP, GC-LB or equivalent.  |

# MAINTENANCE SCHEDULES

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| ■ Maintenance Schedules . . . . .               | 318 | □ Schedule "A" . . . . . | 332 |

**318 MAINTENANCE SCHEDULES****EMISSION CONTROL SYSTEM MAINTENANCE**

The "Scheduled" maintenance services, listed in **bold type** must be done at the times or mileages specified to assure the continued proper functioning of the emission control system. These, and all other maintenance services included in this manual, should be done to provide best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating conditions such as dusty areas and very short trip driving.

Inspection and service also should be done any time a malfunction is suspected.

**NOTE:** Maintenance, replacement, or repair of the emission control devices and systems on your vehicle may be performed by any automotive repair establishment or individual using any automotive part which has been certified pursuant to U.S. EPA or, in the State of California, California Air Resources Board regulations.

**MAINTENANCE SCHEDULES**

There are two maintenance schedules that show the **required** service for your vehicle.

First is Schedule "B". It is for vehicles that are operated under the conditions that are listed below and at the beginning of the schedule.

- Day or night temperatures are below 32°F (0°C)
- Stop and go driving
- Excessive engine idling
- Driving in dusty conditions
- Short trips of less than 10 miles (16.2 km)
- More than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C)
- Trailer towing
- Taxi, police, or delivery service (commercial service)

- Off-road or desert driving
- If equipped for and operated with E-85 (ethanol) fuel.

**NOTE:** If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow "Schedule B" of the "Maintenance Schedules" section of this manual.

**NOTE:** If ANY of these apply to you then flush and replace your engine coolant/anti-freeze every 102,000 miles (170 000 km) or 60 months, whichever comes first, and follow "Schedule B" of the "Maintenance Schedules" section of this manual.

**NOTE:** Most vehicles are operated under the conditions listed for Schedule "B."

Second is Schedule "A". It is for vehicles that are not operated under any of the conditions listed under Schedule "B."

Use the schedule that best describes your driving conditions. Where time and mileage are listed, follow the interval that occurs first.

### CAUTION!

Failure to perform the required maintenance items may result in damage to the vehicle.

#### *At Each Stop for Fuel*

- Check the engine oil level about 5 minutes after a fully warmed engine is shut off. Checking the oil level while the vehicle is on level ground will improve the accuracy of the oil level reading. Add oil only when the level is at or below the ADD or MIN mark.
- Check the windshield washer solvent, add as required.

**320 MAINTENANCE SCHEDULES*****Once a Month***

- Check the tire pressure and look for unusual wear or damage.
- Inspect the battery and clean and tighten the terminals as required.
- Check the fluid levels of the coolant reservoir, brake master cylinder, and transmission, and add as needed.
- Check all lights and all other electrical items for correct operation.

***At Each Oil Change***

- Change the engine oil filter.
- Inspect the exhaust system.
- Inspect brake hoses.
- Check the coolant level, hoses, and clamps.
- After completion of off-road operation, the underside of the vehicle should be thoroughly inspected. Examine threaded fasteners for looseness.

## Schedule "B"

Follow this schedule if you usually operate your vehicle under one or more of the following conditions.

- Day or night temperatures are below 32°F (0°C)
- Stop and go driving
- Excessive engine idling
- Driving in dusty conditions
- Short trips of less than 10 miles (16.2 km)
- More than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C)
- Trailer towing
- Taxi, police, or delivery service (commercial service)

- Off-road or desert driving

- If equipped for and operated with E-85 (ethanol) fuel.

**NOTE:** If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow "Schedule B" of the "Maintenance Schedules" section of this manual.

**NOTE:** If ANY of these apply to you then flush and replace your engine coolant/anti-freeze every 102,000 miles (170 000 km) or 60 months, whichever comes first, and follow "Schedule B" of the "Maintenance Schedules" section of this manual.

## 322 SCHEDULE "B"

| Miles<br>(Kilometers)   | 3,000<br>(5 000) | 6,000<br>(10 000) | 9,000<br>(15 000) | 12,000<br>(20 000) | 15,000<br>(25 000) |
|---|------------------|-------------------|-------------------|--------------------|--------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months. | X                | X                 | X                 | X                  | X                  |
| Rotate the tires.   |                  | X                 |                   | X                  |                    |
| <b>Inspect the engine air filter element, replace if necessary.</b>       |                  |                   |                   |                    | X                  |
| Lubricate the steering linkage tie rod ends.                              | X                | X                 | X                 | X                  | X                  |
| Lubricate the steering and suspension ball joints.                        |                  | X                 |                   | X                  |                    |
| Inspect the brake linings.  |                  |                   |                   | X                  |                    |
| Drain and refill the front and rear axle fluid‡                           |                  |                   |                   | X                  |                    |

| Miles<br>(Kilometers)   | 18,000<br>(30 000) | 21,000<br>(35 000) | 24,000<br>(40 000) | 27,000<br>(45 000) | 30,000<br>(50 000) |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months. | X                  | X                  | X                  | X                  | X                  |
| Rotate the tires.   | X                  |                    | X                  |                    | X                  |
| <b>Inspect the engine air filter element, replace if necessary.</b>       |                    |                    |                    |                    | X                  |
| <b>Inspect the PCV Valve, and replace if necessary.◊</b>                  |                    |                    |                    |                    | X                  |
| <b>Replace the spark plugs.</b>   |                    |                    |                    |                    | X                  |
| Lubricate the steering linkage tie rod ends.                              | X                  | X                  | X                  | X                  | X                  |
| Lubricate the steering and suspension ball joints.                        | X                  |                    | X                  |                    | X                  |
| Inspect the brake linings.  |                    |                    | X                  |                    |                    |
| Drain and refill the front and rear axle fluid†                           |                    |                    | X                  |                    |                    |
| Inspect the manual transmission fluid, add as necessary.                  |                    |                    |                    |                    | X                  |
| Inspect the transfer case fluid, add if necessary.                        |                    |                    |                    |                    | X                  |

## 324 SCHEDULE "B"

| Miles<br>(Kilometers)   | 33,000<br>(55 000) | 36,000<br>(60 000) | 39,000<br>(65 000) | 42,000<br>(70 000) | 45,000<br>(75 000) |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months. | X                  | X                  | X                  | X                  | X                  |
| Rotate the tires.   |                    | X                  |                    | X                  |                    |
| <b>Inspect the engine air filter element, replace if necessary.</b>       |                    |                    |                    |                    | X                  |
| Lubricate the steering linkage tie rod ends.                              | X                  | X                  | X                  | X                  | X                  |
| Lubricate the steering and suspension ball joints.                        |                    | X                  |                    | X                  |                    |
| Inspect the brake linings.  |                    | X                  |                    |                    |                    |
| Drain and refill the front and rear axle fluid‡                           |                    | X                  |                    |                    |                    |
| Inspect the drive belt and replace as needed.                             |                    |                    |                    |                    | X                  |

| Miles<br>(Kilometers)   | 48,000<br>(80 000) | 51,000<br>(85 000) | 54,000<br>(90 000) | 57,000<br>(95 000) | 60,000<br>(100 000) |
|---|--------------------|--------------------|--------------------|--------------------|---------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months. | X                  | X                  | X                  | X                  | X                   |
| Rotate the tires.   | X                  |                    | X                  |                    | X                   |
| <b>Inspect the engine air filter element, replace if necessary.</b>       |                    |                    |                    |                    | X                   |
| <b>Inspect the PCV Valve, and replace if necessary.◊</b>                  |                    |                    |                    |                    | X                   |
| <b>Replace the ignition cables (2.4L Only).</b>                           |                    |                    |                    |                    | X                   |
| <b>Replace the spark plugs.</b>   |                    |                    |                    |                    | X                   |
| Lubricate the steering linkage tie rod ends.                              | X                  | X                  | X                  | X                  | X                   |
| Lubricate the steering and suspension ball joints.                        | X                  |                    | X                  |                    | X                   |
| <b>Inspect the brake linings.</b>   | X                  |                    |                    |                    | X                   |
| Drain and refill the front and rear axle fluid‡                           | X                  |                    |                    |                    | X                   |
| Inspect manual transmission fluid, add as necessary.                      |                    |                    |                    |                    | X                   |
| Drain and refill the automatic transmission fluid, and change filter.†    |                    |                    |                    |                    | X                   |

**326 SCHEDULE "B"**

| Miles<br>(Kilometers)  | 48,000<br>(80 000) | 51,000<br>(85 000) | 54,000<br>(90 000) | 57,000<br>(95 000) | 60,000<br>(100 000) |
|--|--------------------|--------------------|--------------------|--------------------|---------------------|
| Inspect the drive belt and replace as needed. Not required if belt was previously. |                    |                    |                    |                    | X                   |
| Drain and refill the transfer case fluid.  |                    |                    |                    |                    | X                   |
| Flush and replace the engine coolant/anti-freeze.                                  |                    |                    |                    |                    | X                   |

| Miles<br>(Kilometers)   | 63,000<br>(105 000) | 66,000<br>(110 000) | 69,000<br>(115 000) | 72,000<br>(120 000) | 75,000<br>(125 000) |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months.                   | X                   | X                   | X                   | X                   | X                   |
| Rotate the tires.   |                     | X                   |                     | X                   |                     |
| <b>Inspect the engine air filter element, replace if necessary.</b>                         |                     |                     |                     |                     | X                   |
| Lubricate the steering linkage tie rod ends.  | X                   | X                   | X                   | X                   | X                   |
| Lubricate the steering and suspension ball joints.  |                     | X                   |                     | X                   |                     |
| Inspect the brake linings.  |                     |                     |                     | X                   |                     |
| Drain and refill the front and rear axle fluid‡   |                     |                     |                     | X                   |                     |
| Inspect the drive belt and replace as needed. Not required if belt was previously replaced. |                     |                     |                     |                     | X                   |

## 328 SCHEDULE "B"

| Miles<br>(Kilometers)   | 78,000<br>(130 000) | 81,000<br>(135 000) | 84,000<br>(140 000) | 87,000<br>(145 000) | 90,000<br>(150 000) |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months.                   | X                   | X                   | X                   | X                   | X                   |
| Rotate the tires.   | X                   |                     | X                   |                     | X                   |
| <b>Inspect the engine air filter element, replace if necessary.</b>                         |                     |                     |                     |                     | X                   |
| <b>Inspect the PCV Valve, and replace if necessary.◊</b>                                    |                     |                     |                     |                     | X                   |
| <b>Replace the spark plugs.</b>   |                     |                     |                     |                     | X                   |
| Lubricate the steering linkage tie rod ends.  | X                   | X                   | X                   | X                   | X                   |
| Lubricate the steering and suspension ball joints.  | X                   |                     | X                   |                     | X                   |
| Replace the timing belt (2.4L Only)◊.   |                     |                     |                     |                     | X                   |
| Inspect the brake linings.  |                     |                     | X                   |                     |                     |
| Drain and refill the front and rear axle fluid‡   |                     |                     | X                   |                     |                     |
| Inspect the drive belt and replace as needed. Not required if belt was previously replaced. |                     |                     |                     |                     | X                   |
| Inspect the manual transmission fluid, add as necessary.                                    |                     |                     |                     |                     | X                   |
| Inspect the transfer case fluid, add if necessary.  |                     |                     |                     |                     | X                   |

| Miles<br>(Kilometers)   | 93,000<br>(155 000) | 96,000<br>(160 000) | 99,000<br>(165 000) | 102,000<br>(170 000) | 105,000<br>(175 000) |
|---|---------------------|---------------------|---------------------|----------------------|----------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months.                   | X                   | X                   | X                   | X                    | X                    |
| Rotate the tires.   |                     | X                   |                     | X                    |                      |
| <b>Inspect the engine air filter element, replace if necessary.</b>                         |                     |                     |                     |                      | X                    |
| Lubricate the steering linkage tie rod ends.  | X                   | X                   | X                   | X                    | X                    |
| Lubricate the steering and suspension ball joints.  |                     | X                   |                     | X                    |                      |
| Inspect the brake linings.  |                     | X                   |                     |                      |                      |
| Drain and refill the front and rear axle fluid†   |                     | X                   |                     |                      |                      |
| Inspect the drive belt and replace as needed. Not required if belt was previously replaced. |                     |                     |                     |                      | X                    |
| Flush and replace the engine coolant/anti-freeze, if not done at 60,000 miles (96 000 km).  |                     |                     |                     | X                    |                      |

## 330 SCHEDULE "B"

| Miles<br>(Kilometers)   | 108,000<br>(180 000) | 111,000<br>(185 000) | 114,000<br>(190 000) | 117,000<br>(195 000) | 120,000<br>(200 000) |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|
| Change the engine oil and engine oil filter, if not replaced at 3 months.         | X                    | X                    | X                    | X                    | X                    |
| Rotate the tires.   | X                    |                      | X                    |                      | X                    |
| Inspect the engine air filter element, replace if necessary.                      |                      |                      |                      |                      | X                    |
| Inspect the PCV Valve, and replace if necessary.◊                                 |                      |                      |                      |                      | X                    |
| Replace the spark plugs.  |                      |                      |                      |                      | X                    |
| Replace the ignition cables (2.4L Only).  |                      |                      |                      |                      | X                    |
| Lubricate the steering linkage tie rod ends.                                      | X                    | X                    | X                    | X                    | X                    |
| Lubricate the steering and suspension ball joints.                                | X                    |                      | X                    |                      | X                    |
| Inspect the brake linings.  | X                    |                      |                      |                      | X                    |
| Drain and refill the front and rear axle fluid‡                                   | X                    |                      |                      |                      | X                    |
| Inspect the manual transmission fluid, add as necessary.                          |                      |                      |                      |                      | X                    |
| Drain and refill the automatic transmission fluid, and replace main sump filter.† |                      |                      |                      |                      | X                    |

Information Provided by:



| Miles<br>(Kilometers)  | 108,000<br>(180 000) | 111,000<br>(185 000) | 114,000<br>(190 000) | 117,000<br>(195 000) | 120,000<br>(200 000) |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
| Inspect the drive belt and replace as needed. Not required if belt was previously replaced.      |                      |                      |                      |                      | X                    |
| Drain and refill the transfer case fluid.  |                      |                      |                      |                      | X                    |
| Flush and replace the engine coolant/anti-freeze, if not replaced at 102,000 miles (170 000 km). |                      |                      |                      |                      | X                    |

Inspection and service should also be performed anytime a malfunction is observed or suspected. Retain all receipts.

† Applies only if vehicle is used for frequent trailer towing or fleet/commercial service.

◊ This maintenance is recommended by the manufacturer to the owner, but is not required to maintain emissions warranty.

‡Off-highway operation, trailer towing, taxi, limousine, bus, snow plowing, or other types of commercial service or prolonged operation with heavy loading, especially in hot weather, require front and rear axle service indicated with a ‡ in Schedule "B". Perform these services if the vehicle is usually operated under these conditions.

## 332 SCHEDULE "A" ■■■■■

**Schedule "A"**

| Miles<br>(Kilometers)<br>[Months]                                | 6,000<br>(10 000)<br>[6] | 12,000<br>(20 000)<br>[12] | 18,000<br>(30 000)<br>[18] | 24,000<br>(40 000)<br>[24] | 30,000<br>(50 000)<br>[30] |
|--|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Change the engine oil and engine oil filter.                     | X                        | X                          | X                          | X                          | X                          |
| Rotate the tires.  | X                        | X                          | X                          | X                          | X                          |
| Inspect the engine air filter element, and replace if necessary. |                          |                            |                            |                            | X                          |
| Replace the spark plugs.   |                          |                            |                            |                            | X                          |
| Lubricate the steering linkage joints and outer tie rod ends.    | X                        | X                          | X                          | X                          | X                          |
| Lubricate the steering and suspension ball joints.               |                          | X                          |                            | X                          |                            |
| Inspect the brake linings.                                       |                          |                            | X                          |                            |                            |
| Inspect the manual transmission fluid, add as necessary.         |                          |                            |                            |                            | X                          |
| Inspect the transfer case fluid.                                 |                          |                            |                            |                            | X                          |

| Miles<br>(Kilometers)<br>[Months]                             | 36,000<br>(60 000)<br>[36] | 42,000<br>(70 000)<br>[42] | 48,000<br>(80 000)<br>[48] | 54,000<br>(90 000)<br>[54] |
|---|----------------------------|----------------------------|----------------------------|----------------------------|
| Change the engine oil and engine oil filter.                  | X                          | X                          | X                          | X                          |
| Rotate the tires.   | X                          | X                          | X                          | X                          |
| Lubricate the steering and suspension ball joints.            | X                          |                            | X                          |                            |
| Lubricate the steering linkage joints and outer tie rod ends. | X                          | X                          | X                          | X                          |
| Inspect the brake linings.                                    | X                          |                            |                            | X                          |

## 334 SCHEDULE "A"

| Miles<br>(Kilometers)<br>[Months]  | 60,000<br>(100 000)<br>[60] | 66,000<br>(110 000)<br>[66] | 72,000<br>(120 000)<br>[72] | 78,000<br>(130 000)<br>[78] |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Change the engine oil and engine oil filter.   | X                           | X                           | X                           | X                           |
| Rotate the tires.  | X                           | X                           | X                           | X                           |
| Inspect the engine air filter element, and replace if necessary.                             | X                           |                             |                             |                             |
| Inspect the PCV Valve, and replace if necessary.◊  | X                           |                             |                             |                             |
| Replace the ignition cables (2.4L Only).   | X                           |                             |                             |                             |
| Replace the spark plugs.   | X                           |                             |                             |                             |
| Lubricate the steering linkage joints and outer tie rod ends.                                | X                           | X                           | X                           | X                           |
| Lubricate the steering and suspension ball joints.   | X                           |                             | X                           |                             |
| Inspect the brake linings.   |                             |                             | X                           |                             |
| Inspect the drive belt, and replace as needed.   | X                           |                             |                             |                             |
| Inspect the drive belt, and replace as needed. Not required if belt was previously replaced. |                             |                             | X                           |                             |

| Miles<br>(Kilometers)<br>[Months]                        | 60,000<br>(100 000)<br>[60] | 66,000<br>(110 000)<br>[66] | 72,000<br>(120 000)<br>[72] | 78,000<br>(130 000)<br>[78] |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Flush and replace the engine coolant/anti-freeze.        | X                           |                             |                             |                             |
| Inspect the manual transmission fluid, add as necessary. | X                           |                             |                             |                             |
| Inspect transfer case fluid.                             | X                           |                             |                             |                             |

## 336 SCHEDULE "A"

| Miles<br>(Kilometers)<br>[Months]   | 84,000<br>(140 000)<br>[84] | 90,000<br>(150 000)<br>[90] | 96,000<br>(160 000)<br>[96] | 102,000<br>(170 000)<br>[102] |
|---|-----------------------------|-----------------------------|-----------------------------|-------------------------------|
| Change the engine oil and engine oil filter.  | X                           | X                           | X                           | X                             |
| Rotate the tires.   | X                           | X                           | X                           | X                             |
| <b>Inspect the engine air filter element, and replace if necessary.</b>             |                             | X                           |                             |                               |
| <b>Inspect the PCV Valve, and replace if necessary.◊</b>                            |                             | X                           |                             |                               |
| <b>Replace the spark plugs.</b>   |                             | X                           |                             |                               |
| Lubricate the steering linkage joints and outer tie rod ends.                       | X                           | X                           | X                           | X                             |
| Lubricate the steering and suspension ball joints.                                  | X                           |                             | X                           |                               |
| Inspect the brake linings.  |                             | X                           |                             |                               |
| Inspect the drive belt, and replace as needed. Not required if previously replaced. |                             | X                           |                             | X                             |
| Flush and replace the engine coolant/anti-freeze if not done at 60 months.          |                             |                             |                             | X                             |
| Inspect the manual transmission fluid, add as necessary.                            |                             | X                           |                             |                               |
| Inspect the transfer case fluid.  |                             | X                           |                             |                               |

| Miles<br>(Kilometers)<br>[Months]  | 108,000<br>(180 000)<br>[108] | 114,000<br>(190 000)<br>[114] | 120,000<br>(200 000)<br>[120] |
|--|-------------------------------|-------------------------------|-------------------------------|
| Change the engine oil and engine oil filter.   | X                             | X                             | X                             |
| Rotate the tires.  | X                             | X                             | X                             |
| <b>Inspect the engine air filter element, and replace if necessary.</b>                    |                               |                               | X                             |
| <b>Replace the ignition cables (2.4L Only).</b>  |                               |                               | X                             |
| <b>Inspect the PCV Valve, and replace if necessary.◊</b>                                   |                               |                               | X                             |
| <b>Replace the spark plugs.</b>  |                               |                               | X                             |
| Lubricate the steering linkage joints and outer tie rod ends.                              | X                             | X                             | X                             |
| Lubricate the steering and suspension ball joints.   | X                             |                               | X                             |
| <b>Inspect the brake linings.</b>  | X                             |                               |                               |
| <b>Replace the timing belt (2.4L Only).◊</b>   |                               |                               | X                             |
| <b>Inspect the drive belt, and replace as needed. Not required if previously replaced.</b> |                               |                               | X                             |

**338 SCHEDULE "A"**

| Miles<br>(Kilometers)<br>[Months]  | 108,000<br>(180 000)<br>[108] | 114,000<br>(190 000)<br>[114] | 120,000<br>(200 000)<br>[120] |
|--|-------------------------------|-------------------------------|-------------------------------|
| Inspect the manual transmission fluid, add as necessary.                                     |                               |                               | X                             |
| Drain and refill the transfer case fluid.  |                               |                               | X                             |
| Flush and replace the engine coolant/anti-freeze, if not done at 102,000 miles (170 000 km). |                               |                               | X                             |

Inspection and service should also be performed anytime a malfunction is observed or suspected. Retain all receipts.

◊ This maintenance is recommended by the manufacturer to the owner, but is not required to maintain emissions warranty.

# IF YOU NEED CONSUMER ASSISTANCE

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## SUGGESTIONS FOR OBTAINING SERVICE FOR YOUR VEHICLE

### Prepare For The Appointment

If you're having warranty work done, be sure to have the right papers with you. Take your warranty folder. All work to be performed may not be covered by the warranty, discuss additional charges with the service manager. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem.

### Prepare A List

Make a written list of your vehicle's problems or the specific work you want done. If you've had an accident, or work done that is not on your maintenance log, let the service advisor know.

### Be Reasonable With Requests

If you list a number of items, and you must have your vehicle by the end of the day, discuss the situation with the service advisor and list the items in order of priority. At many dealers you may obtain a rental vehicle at a minimal daily charge. If you need a rental, it is advisable to make these arrangements when you call for an appointment.

### IF YOU NEED ASSISTANCE

The manufacturer and its dealers are vitally interested in your satisfaction. We want you to be happy with our products and services.

Warranty service must be done by an authorized Chrysler, Dodge, or Jeep dealer. We strongly recommend that you take your vehicle to your selling dealer. They know you and your vehicle best, and are most concerned that you get prompt and high quality service. The manufacturer's dealers have the facilities, factory-trained

technicians, special tools, and the latest information to assure your vehicle is fixed correctly and in a timely manner.

This is why you should always talk to your dealer's service manager first. Most matters can be resolved with this process.

- If for some reason you are still not satisfied, talk to the general manager or owner of the dealership. They want to know if you need assistance.
- If your dealership is unable to resolve the concern, you may contact the Manufacturer's Customer Center.

Any communication to the Manufacturer's Customer Center should include the following information:

- Owner's name and address
- Owner's telephone number (home and office)
- Dealership name

- Vehicle identification number
- Vehicle delivery date and mileage

*DaimlerChrysler Motors Corporation Customer Center*  
P.O. Box 21-8004  
Auburn Hills, MI 48321-8004  
Phone: (800) 992-1997

*DaimlerChrysler Canada Inc. Customer Center*  
P.O. Box 1621  
Windsor, Ontario N9A 4H6  
Phone —(800) 465-2001

*In Mexico contact:*  
Av. Prolongacion Paseo de la Reforma, 1240  
Sante Fe C.P. 05109  
Mexico, D. F.  
In Mexico (915) 729-1248 or 729-1240  
Outside Mexico (525) 729-1248 or 729-1240

### *Customer Assistance For The Hearing Or Speech Impaired (TDD/TTY)*

To assist customers who have hearing difficulties, the manufacturer has installed special TDD (Telecommunication Devices for the Deaf) equipment at its Customer Center. Any hearing or speech impaired customer who has access to a TDD or a conventional teletypewriter (TTY) in the United States can communicate with the manufacturer by dialing 1-800-380-CHRY.

### *Service Contract*

You may have purchased a service contract for your vehicle to help protect you from the high cost of unexpected repairs after your manufacturer's new vehicle limited warranty expires. The manufacturer stands behind only the manufacturer's Service Contracts. If you purchased a manufacturer's Service Contract, you will receive Plan Provisions and an Owner Identification Card in the mail within three weeks of your vehicle delivery date. If you have any questions about your service

contract, call the manufacturer's Service Contract National Customer Hotline at 1-800-521-9922.

The manufacturer will not stand behind any service contract that is not the manufacturer's Service Contract. It is not responsible for any service contract other than the manufacturer's Service Contract. If you purchased a service contract that is not a manufacturer's Service Contract, and you require service after your manufacturer's new vehicle limited warranty expires, please refer to your contract documents, and contact the person listed in those documents.

We appreciate that you have made a major investment when you purchased your new vehicle. Your dealer has also made a major investment in facilities, tools, and training to assure that you are absolutely delighted with your ownership experience. You'll be pleased with their sincere efforts to resolve any warranty issues or related concerns.

Information Provided by:



## **WARRANTY INFORMATION (U.S. Vehicles Only)**

See the Warranty Information Booklet for the terms and provisions of DaimlerChrysler's warranties applicable to this vehicle.

## **MOPAR® PARTS**

Mopar® fluids, lubricants, parts, and accessories are available from your dealer. They will help you keep your vehicle operating at its best.

## **REPORTING SAFETY DEFECTS**

In the 50 United States and Washington D.C.: If you believe that your vehicle has a defect which could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the manufacturer.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy

campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, and the manufacturer.

To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-888-327-4236 (TTY: 1-800-424-9153), or go to <http://www.NHTSA.gov>. or write to: NHTSA, U.S. Dept. of Transportation, Washington DC 20590. You can also obtain other information about motor vehicle safety from the Hotline.

### **In Canada:**

If you believe that your vehicle has a safety defect, you should contact the Customer Service Department immediately. Canadian customers who wish to report a safety defect to the Canadian government should write to Transport Canada, Motor Vehicle Defect Investigations and Recalls, 2780 Sheffield Road, Ottawa, Ontario K1B 3V9.

## PUBLICATION ORDER FORMS

To order the following manuals, you may use either the website or the phone numbers listed below. Visa, Mastercard, American Express, and Discover orders are accepted. If you prefer mailing your payment, please call for an order form.

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- *Service Manuals.*

These comprehensive service manuals provide the information that students and professional technicians need in diagnosing/troubleshooting, problem solving, maintaining, servicing and repairing DaimlerChrysler Corporation vehicles. A complete working knowledge of the vehicle, system and/or components is written in straightforward language with illustrations, diagrams and charts.

- *Diagnostic Procedure Manuals.*

Filled with diagrams, charts and detailed illustrations, these practical manuals make it easy for students and technicians to find and fix problems on computer-controlled vehicle systems and features. They show exactly how to find and correct problems the first time, using step-by-step troubleshooting and driveability procedures, proven diagnostic tests and a complete list of all tools and equipment.

- *Owner's Manuals.*

These manuals have been prepared with the assistance of service and engineering specialists to acquaint you with specific Chrysler group vehicles. Included are starting, operating, emergency and maintenance procedures as well as specifications, capabilities and safety tips.

*Call Toll Free at:*

- **1-800-890-4038 (U.S.)**
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- [www.daimlerchrysler.ca/manuals](http://www.daimlerchrysler.ca/manuals)

## **DEPARTMENT OF TRANSPORTATION UNIFORM TIRE QUALITY GRADES**

The following describes the tire grading categories established by the National highway Traffic Safety Administration. The specific grade rating assigned by the tire's manufacturer in each category is shown on the sidewall of the tires on your car.

All Passenger Car Tires Must Conform to Federal Safety Requirements in Addition to These Grades.

### **Treadwear**

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

### **Traction Grades**

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.

A tire marked C may have poor traction performance.

**WARNING!**

The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

**Temperature Grades**

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor

Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

**WARNING!**

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

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